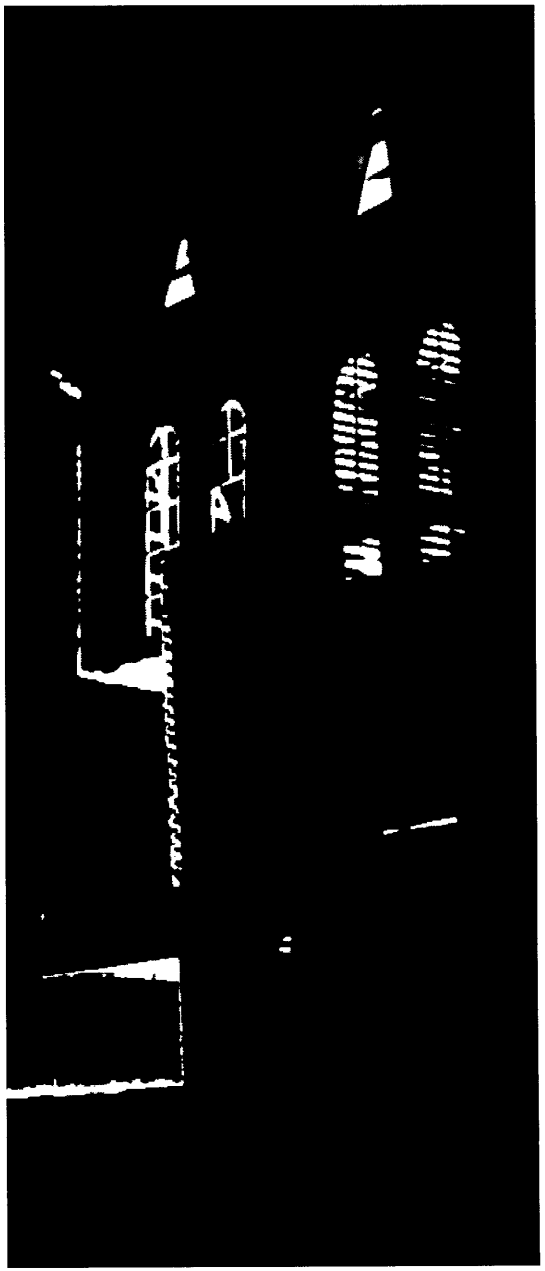
# LEVELS OF DEPENDENCE:
## *A Drug Rehabilitation Facility for Mothers and their Children*



by
Ronald Evan Frankel
B.A., Bowdoin College
Brunswick, Maine
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Submitted to the Department of Architecture
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Author

Ronald Evan Frankel, Department of Architecture
February 9, 1996

Certified by

Ellen Dunham-Jones
Assistant Professor of Architecture
Thesis Supervisor

Accepted by

Wellington Reiter
Chair, Department Committee on Graduate Students

## Abstract

Contemporary society is faced with an increasing problem of substance abuse and addiction. The public consequences of this private problem are experienced in the increasing costs in the healthcare, penal and welfare systems as well as the less tangible effects drugs and addiction have on the quality of our urban centers. Current efforts to solve this problem include education, substance abuse treatment and curtailing the availability of drugs. Although these efforts are effective they are not sufficient because traditional treatment programs exclude a critical group within the substance abuse population--women with dependent children. This group, whose most pressing concerns are education, domestic violence and substance abuse, has been growing at an alarming rate and if their needs are not addressed then their problems will be handed down to their children in an increasing cycle of dependence.

A new model for treatment is needed; one which can accommodate women and their children and can recognize the advantages of maintaining and nurturing families rather than isolating patients and placing their children in foster care. Such a facility could capitalize on the mutual support offered within the family structure and could address the growing problem of substance abuse with the most vulnerable population--the children of drug addicted parents.

The architectural proposal presented here expresses the complex levels of dependence found between the individual and society, the individual and the clinic and between the parent and child. The progress from dependence to independence is articulated through a series of typological transformations which map the transition from institutional to domestic living and symbolizes in the urban fabric a process of healing and growth, revitalizing both the city and its population.


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*Submitted to the Department of Architecture on February 9, 1996 in partial fulfillment of the requirements for the degree of Master of Architecture*

Thesis supervisor: Ellen Dunham Jones
*Assistant Professor of Architecture*

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*All photographs and illustrations are by the author.*

# Preface:
## *Ideology and Architecture*

I have directed my attention in this thesis to a social problem. The questions which immediately arise are: What, if any, is the role of design in the realm of social policy? What value is there to making architectural proposals for our societal problems? Is the designer qualified to act as a 'social engineer'?

I believe that there is a value to applying the skills of a designer to the issues confronted by contemporary society. That value is not as a technocrat dictating solutions, but rather as a contribution to the public debate surrounding these issues and their potential solutions. The designer has the privilege of being able to step outside the constraints of policy and politics to visualize a possible future, a concept which may already have been thought but not seen. The physical model once placed on the table acts as a catalyst for discussion and as an impetus for action.

But does the value of this endeavor lie simply in the initial act of selecting a socially provocative program? Has the social good already been served by merely focusing attention upon it? Or is their a more profound, substantive role for architectural design in the field of social change? In this case, would any rehabilitation facility which did not break apart the family be better than one which did force the separation of parent and child? Or are there questions to be raised and answers to be explored which can only be arrived at through the design process?

Social change is a collaborative effort which requires the participation of various advocates. My goal through this architectural investigation is to explore how the act of designing can be employed as a useful tool for influencing, informing and affecting that effort.

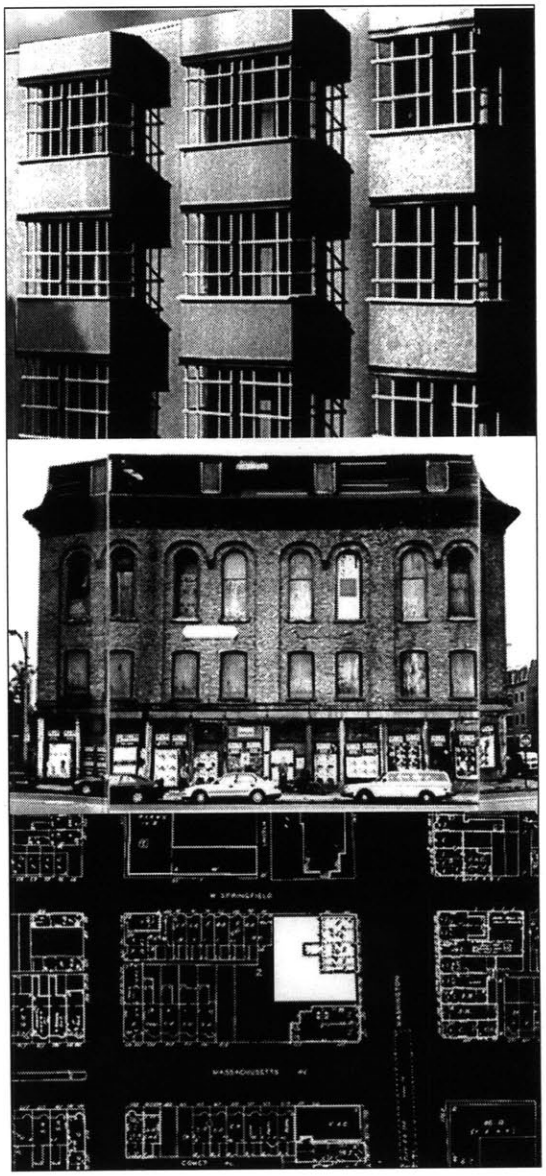


*figure 1: View of the model.*

## Introduction:
*A Cycle of Dependence*

For a single mother dealing with a chemical dependency there are few avenues which offer support. The majority of existing treatment facilities are not equipped to handle their specific needs as women nor their needs as parents. The problem of addiction among women is poorly understood, although in recent years more research has been devoted to this issue. One study observed that in a given year more than one-half the patients admitted to emergency rooms for drug related problems were women while in that same year they represented only 25% of those admitted to federally funded treatment and rehabilitation programs[1]. In the entire state of Utah 7.3% of women abusing drugs sought treatment[2] while out of an estimated 100,000 pregnant women who need substance abuse treatment each year only 30,000 receive any[3]. Some of the reasons for these discrepancies are presented below but the impact of this situation deserves consideration. Beyond their being a population excluded from treatment facilities many of these women are also parents. The consequences of their addiction are found in the high risks and costs of drug use during pregnancy as well as in the potential of passing their addiction on to their children resulting in a growing cycle of dependence. This cycle has grave consequences to all members of society resulting from increased crime, violence and cost incurred across the penal, healthcare and welfare systems.

[1] *Behrouz Shahandeh, Rehabilitation Approaches to Drug and Alcohol Dependence, p. 43.*

[2] *Kumpfer, K.L. and Holman, A., Women and Substance Abuse: A Review.*

[3] *Institute of Medicine, Washington, D.C., Treating Drug Problems, p. 234.*

### History of Treatment

Existing drug treatment programs are based on a paradigm established in the 1940's whose target population was single male alcoholics, typified by the skid-row drunk. Treatment for these individuals consisted primarily of a dry-out period to work through the difficult detoxification process after which they would be offered guidance, often spiritual, and support group meetings to assist in the transition to a clean life. Today the majority of treatment programs are based on this same model with modifications based on the specific drug in question and greater sophistication in the post-detoxification support structure to ensure a successful long-term recovery.

One of the major advancements made in treatment programs was the advent of long-term care, usually lasting from 6-18 months. Programs which offer long-term care experience higher rates of success but they also require a greater commitment and sacrifice on the part of those offering and receiving care. The Griffin House located in Dorchester, MA is an example of a facility offering a long-term treatment program. Griffin House, which has been operating for almost 25 years, requires a two year commitment from women seeking treatment. The women who arrive at Griffin House are there to complete a judicial sentence or by orders of the Department of Social Services to regain custody of their children. The program is described as a 'progressive therapeutic community' meaning that from the moment a woman arrives at the door her life will follow a highly structured routine in an environment of peer-support. Treatment in a progressive therapeutic community typically follows a phase structure.

*Detoxification*: Treatment begins with a detoxification process lasting from one to several weeks depending on the substance being treated. The detoxification clinic is a twenty-four hour a day environment supervised by trained professionals and nurses. People completing the detoxification period move directly into a rehabilitation program. The Griffin House does not provide detoxification services, but receives referrals from local clinics.

*Phase One*: The program begins with a thirty day 'on-support' period in which the staff and the new resident get to know each other and the resident's needs are assessed. During this month she will become acquainted with a peer-support mentor who will introduce her to life in the program and she will break all outside contact. Phase One ends when the assessment is complete and initial steps are taken to resolve the identified problems which might include notification of the Department of Social Services or Probation Office, and the handling of any outstanding legal or financial obligations. During the final days of Phase One supervised family visitation is permitted as long as it is determined that the family members are 'safe'.

*Phase Two*: The bulk of the treatment program occurs during Phase Two and lasts six months. The Griffin House is dedicated to re-uniting mothers with their children and during this phase efforts are made to locate the children and to begin family interaction if appropriate. There is room in Griffin House for children to move in with their mothers but this happens very infrequently as the process to regain custody usually lasts longer than the treatment program itself. These months are spent in counselling sessions, peer-support meetings, continuing educational and vocational courses and learning parenting skills. During this period the women are responsible for self-management, responsibilities which include community shopping, cooking and cleaning. Through the experience of collective living the women learn the necessary life skills which will be essential for a lasting recovery.

*Phase Three*: The final three months of treatment are spent establishing an aftercare program, looking for work and housing. Once these are all established the woman completes the in-patient portion of treatment and begins a one year outpatient program consisting of weekly urine tests, group meetings and individual counselling.

## Critique

For all the progress that has been made in treatment programs, the paradigm has certain fundamental flaws which make it inadequate for dealing with the changing face of addiction in contemporary society. That face is now comprised of many more single parent families, poor and often homeless. Today one in every four children is born to a single mother. One third of those mothers are teenagers. She typically would have one or two children under the age of six, probably fathered by different men and in all likelihood she never completed high school. Over the last decade the rate of births to unwed teenagers increased by 120%[4]. Among this population the three most significant problems which need to be addressed are education, domestic violence and substance abuse.

[4]*Homes for the Homeless, Inc.,* <u>*An American Family Myth: Every Child at Risk*</u>*, p. 1-2.*

In the past, the tendency has been to use the drug-related experiences of men to understand through inference the problem as it exists for women. This has changed

over the past decade as "the focus of the drug use patterns of females could not be ascertained by generalizing from studies of males."[5] Women addicts exhibit greater psychological and physical problems upon admission for treatment and have a higher death rate than male addicts. There are also a range of social considerations which must be taken into account when examining addiction among women such as the secondary status many women are accorded in society and the increased responsibility towards family, both factors which impede proper treatment. Other studies point to the lack of educational and occupational training among women addicts and the need to provide both to achieve a successful rehabilitation[6].

[5] *Glynn, Wallenstein, Pearson and Sayers, eds., Women and Drugs, p. 1.*

[6] *See Kumpfer, Karol, L., Programs for Drug Abusing Women.*

In addition to considerations of gender differences in the actual treatment of substance abuse it is necessary to examine the environment in which that treatment is offered. Typical treatment programs operate under a policy of isolation. That is, they require that the individual leave their current environment, breaking all past negative associations and contacts. Among the treatment community there is debate concerning the efficacy of a policy of isolation. One argument claims it provides a clean break from the environment in which one established the addiction. While the other side maintains that dealing with addiction away from one's environment may leave the individual ill-prepared for re-integration into that community after treatment. Without proceeding further into this ideological debate, isolation can be seen to place a disproportionate burden on women who have children, *loss of custody*. If faced with a decision between getting treatment and maintaining custody, many women would choose the latter and try to quit drugs on their own. The loss of custody, or just the threat of such a loss, acts as a major deterrent to women in need of treatment. The consequences of this possibility extend beyond the life of the addicted individual and can result in problematic pregnancies and childbirth and an unhealthy family environment for the children.

While on the surface it might seem justified and preferable to temporarily move the child while the mother receives treatment it totally neglects the influences and consequences of the mother's addiction on the child. In order to make any progress in

combatting addiction treatment must begin with this vulnerable population. It is not nearly enough to move the child into a 'healthy environment', their issues need to be addressed directly and aggressively in an atmosphere catered to their experiences. Furthermore, denying the woman custody of her children because of an addiction places greater significance on the addiction than on the bond between parent and child, a problematic assumption which overlooks the tremendous psychological punishment received by the child who is removed from their mother.

Another factor motivating this investigation is current political debate concerning the role of the state in childcare. Political opinion is critical of our current foster-care system claiming it is too costly in terms of administrative efficiency and the quality of the child's life. Many cases of abuse and neglect escape the attention of over-burdened social workers. One solution being floated by the government is a return to an orphanage system, an idea which immediately conjures up visions of turn of the century orphanages and seems almost punitive in its motives. A more effective system for handling these children needs to be found but it would seem preferable to move closer to a system which unites and fosters families rather than separating them and nurturing generations of family-less children. In the last five years the number of children placed in foster care in New York City alone tripled[7]. On a straightforward economic basis the cost of family preservation is significantly less than the cost of removing children from their families and placing them in orphanages. To support one family for a year would cost $36,000, whereas the costs for operating orphanages and shelters to house those individuals would add up to $100,000[8]. An alternative needs to be sought which enables families to remain together and become self-suffucient. A treatment program which supports family preservation, not separation, through the socialization of responsibility and independence.

[7] *Homes for the Homeless, Inc., An American Family Myth: Every Child at Risk, p. 4.*

[8] *Ibid., p. 6.*

## Proposal

The solution I have chosen to pursue is to establish a new treatment model which offers single mothers an opportunity to receive treatment without losing custody of their children. This is a facility which recognizes the value of family preservation, both in terms of economics and in quality of life. On-site foster care is provided in conjunction with a treatment program catered specifically to the needs of single mothers, so that both parent and child receive the care they need within an extended family environment. In seeking a remedy to this situation there are two avenues which need be explored -- policy and design. The emplacement of such a policy change will require significant efforts on the part of various advocates. As an architect, my contribution to such change is through providing a vision of the design of this alternative treatment model. Through revealing how the needs of both mothers and children can be met in a single facility with multiple levels of dependence corresponding to the different phases of treatment, the design can provoke thought about our social policies regarding substance abuse and comes as a timely investigation of the design issues inherent in such a facility.

## An Architectural Response:
*Levels of Dependence*

From the observations of the existing state of treatment facilities I identified three goals which this project would attempt to achieve. First, it would eradicate the exclusion of women with dependent children by proposing a new model facility with the ability to accommodate families. Second it would capitalize on the presence of children on-site to break the cycle of dependence and to exploit the family as a necessary support structure for successful recovery. And third it would replace the paradigm of isolation with one of integration. Architecturally these goals translate into a building which has a high degree of capacity to house a variety of resident configurations, which provides a safe, protective environment for healing and which acts as a vital presence in its environment.

### Strategies

I developed a set of general relationships to guide the design towards these goals. Through the process of applying them to a site I was forced to re-examine and modify them, continually evaluating my assumptions against the constraints of the site and the knowledge gained from individuals in the drug-treatment field. The relationships fall under the notion of building *levels of dependence* and are articulated by the concentric relationships, civic : residential, institutional : domestic, group : individual.

Each pair defines an equivalent relationship at a smaller scale, so that the role of the clinic as a civic building within the community can be considered analogous to the relationship between the clinic and the residences as well as the relationship between the clinic community and each individual of that community. The theme of concentric relationships is carried through to the design and manifests in the development of degrees of privacy nested within the communal sharing of spaces.

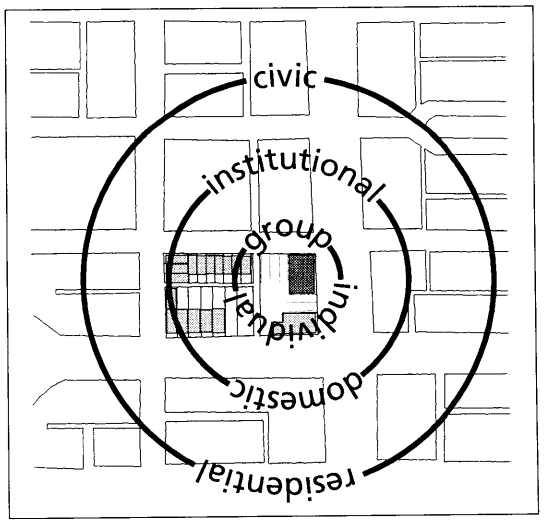



*figure 2: Concentric relationships.*

## Civic : Residential

At the largest scale the pair *civic : residential* defines the relationship between the treatment facility as a civic monument and its integration into the community. A long term drug rehabilitation program operates simultaneously as an institution and as a residential building. On the one hand it is appropriate for the facility to stand out as a civic presence, while on the other hand it should be sensitive to 'not-in-my-backyard' sentiments and the potential stigmatization of the clients. This opens a paradox between exerting a positive influence in its environment and masking its civic/institutional function in order to quietly fit into its neighborhood.

The strategy to resolve this paradox begins with siting the facility in an urban environment. An urban location provides greater accessibility and a rich platform from which to define a model of integration between the facility, the women, the children and their connections with the city.

The goal of a drug treatment program is to teach an individual how to live a substance-free life. Beyond that, the goal of this facility includes the formation of healthy family bonds and the successful reintegration into the community at the end of the program. An urban location supports these desires by allowing the children to maintain their ties in the community while their mothers receive treatment within the context of everyday life with the opportunity to move out into the city, at first under supervised conditions and then with greater and greater freedom. The treatment program is also able to provide efficient after-care services such as peer-support meetings, after-school programs and daycare. It acts as a kind of community center while the move from the facility back into the community upon completion is not a radical change but simply the next in a series of progressive steps leading towards a healthy life.

The dual nature of the facility as both a residential and institutional building is resolved through the use of existing vacant buildings and lots. Using a combina-

tion of renovation and infill satisfies the concerns for integration while both physically healing neglected sites in the city and symbolizing the process of healing and renewal which takes place within.

An appropriate site was located at the corner of Washington St. and Springfield St., adjacent to the intersection of Washington St. and Massachusetts Ave. in Boston's South End. The South End was listed on the National Register of Historic Places in 1973 as the largest urban Victorian neighborhood in the country, consisting of over 300 acres developed in the mid-nineteenth century. It is remarkable for the consistency of its brick rowhouses with mansard roofs and bay windows as well as for its innovative street and service alley design.

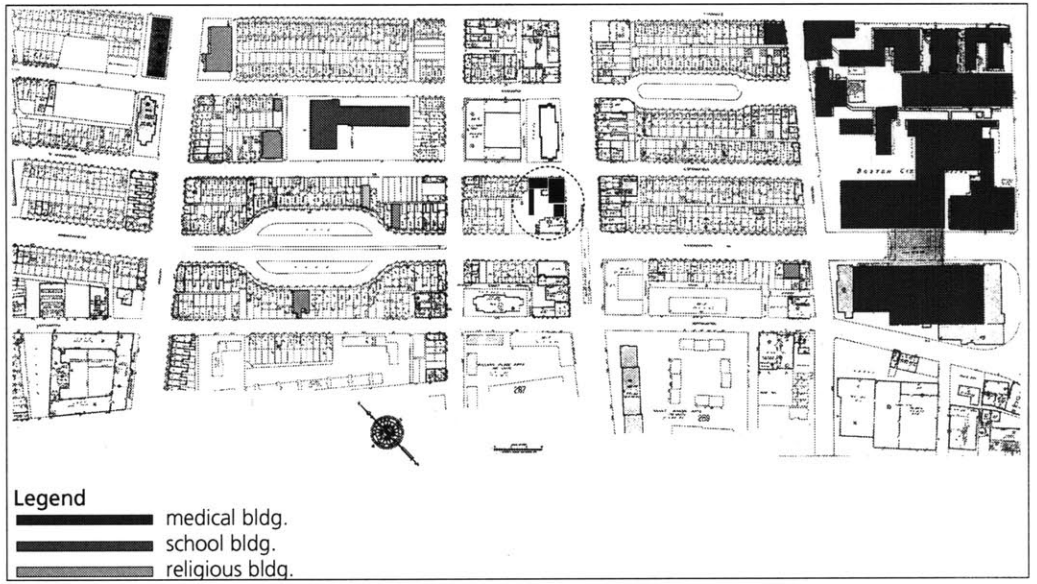



*figure 3: Map of the South End showing the site and its relation to local medical, educational and religious institutions.*

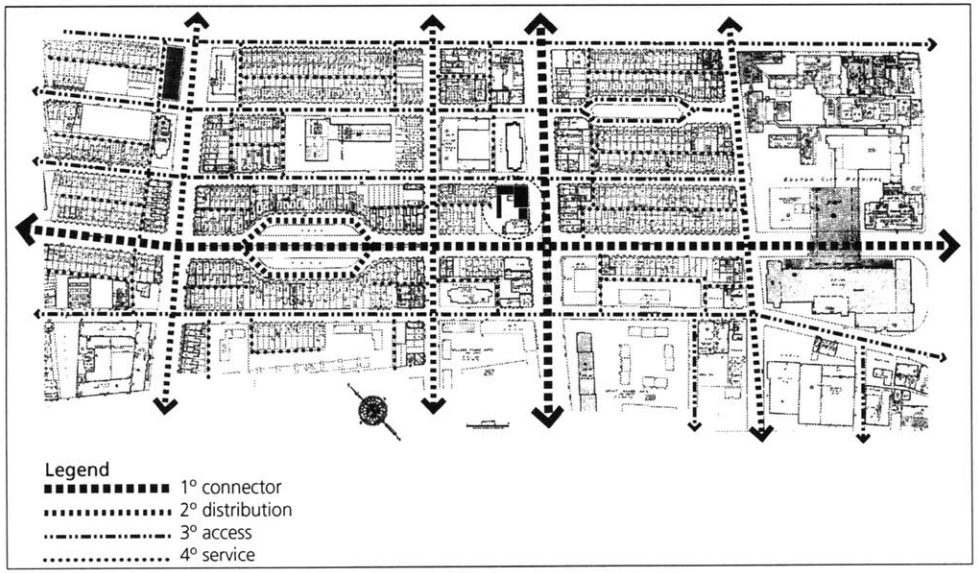



*figure 4: Map of the South End overlayed with a road hierarchy diagram. The site occupies a corner between Washington St., a primary connector, and Springfield St., a tertiary access road.*

The site is desirable for this project because of its proximity to a major hospital, a public school and public transportation. It is on the southernmost edge of the Landmark District whose character has been greatly eroded by new construction, derelict buildings and a high percentage of vacant lots. The site is comprised of a corner lot occupied by the Smith Block, a derelict five story mixed-use building constructed in 1869, surrounded by two vacant lots, one on the commercial/institutional Washington St. and the other on the residential Springfield St. The total site dimensions are approximately 113' x 127'.

As a corner between a small residential street and a busier commercial street this site lends itself to the development of the civic and residential typologies required of this facility. The Smith Block, occupying the prominent corner position, becomes the site of the 'institution' housing the administrative and therapeutic functions and acting as the gateway into the therapeutic community. The vacant lots are the site of rowhouse infill, modified to accommodate the residential needs of the facility. Following this strategy the gaps in the urban fabric are stitched together in a way that satisfies the spatial requirements of the rehabilitation program and addresses potential n.i.m.b.y. concerns.

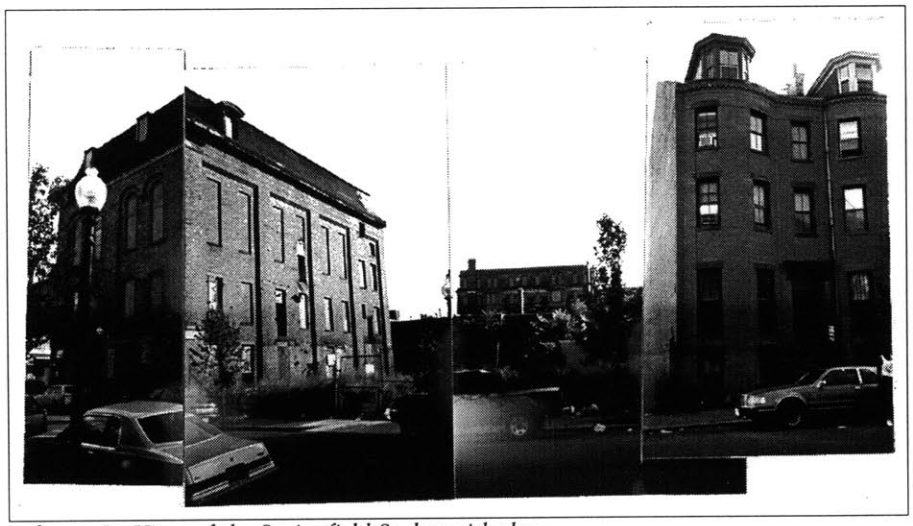


*figure 5: View of the Springfield St. lot with the Smith Block on the left and a typical South End rowhouse on the right.*

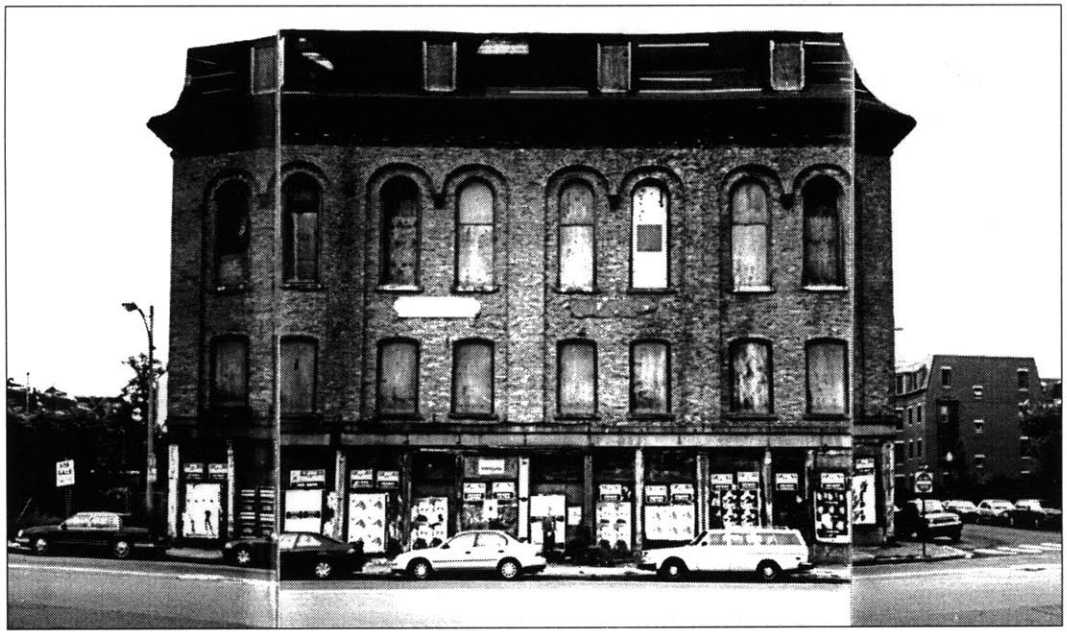


*figure 6: View of the Smith Block looking across Washington St. The Washington St. vacant lot is to the left and Springfield St. is to the right.*

*figure 7: View along Springfield St. looking towards Washington St. The second vacant lot is seen on the right of the photo in the space between the Smith Block and the rowhouses.*

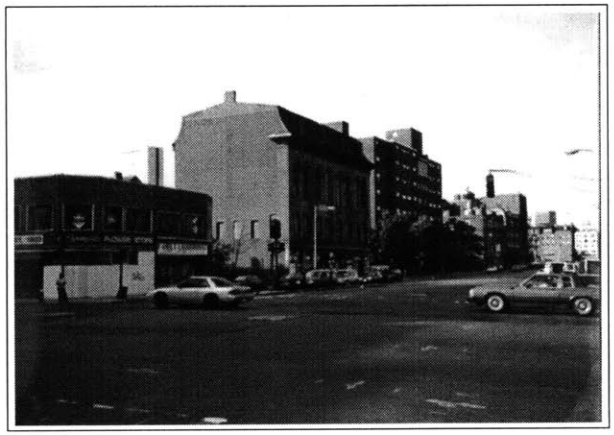


*figure 8: View across Mass. Ave. of the Smith Block and the Washington St. lot.*

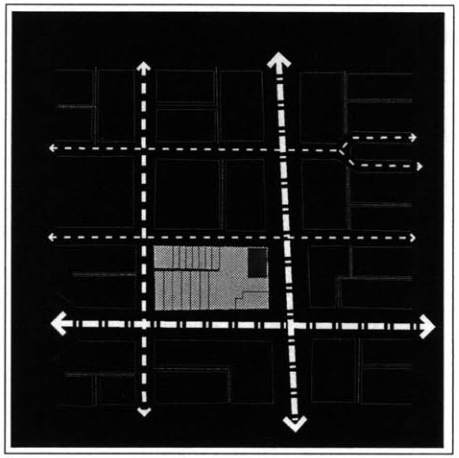


*figure 9: Diagram showing the existing conditions of the site. This particular block is considerably shorter than most South End blocks and it does not have the typical cross block service alley found throughout this district.*

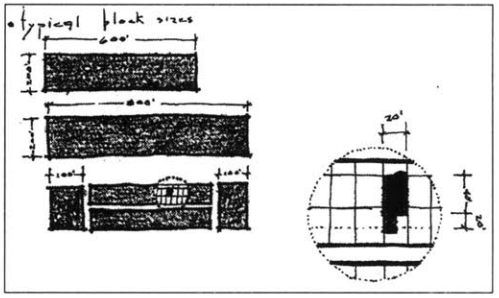



*figure 10: Analysis of typical block and lot sizes found in the South End. The block is divided by the service alleys into four sections: two block ends approximately 100'x 200' and two block interiors between 400' and 600' long, divided into 20'x60' lots.*

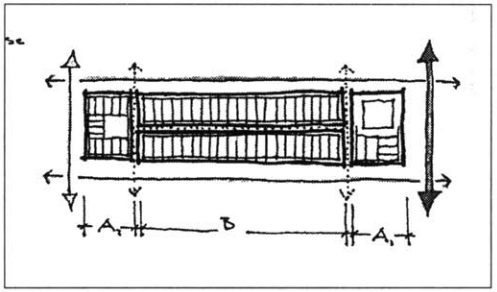



*figure 11: Analysis of lot position and use on a typical block. The 20' lots comprising the block interior remain residential (B). The block end bordering on the secondary street ($A_2$, left) is a mixed-use residential and commercial area with first and second floor businesses and upper floor apartments. The block end bordering the primary street ($A_1$, right) often breaks the 20' lot partitions and is given over to institutional uses such as churches, schools and public housing. The differentiation of uses is facilitated by the cross block alley which separates the residential block interior from the commercial and institutional block ends.*

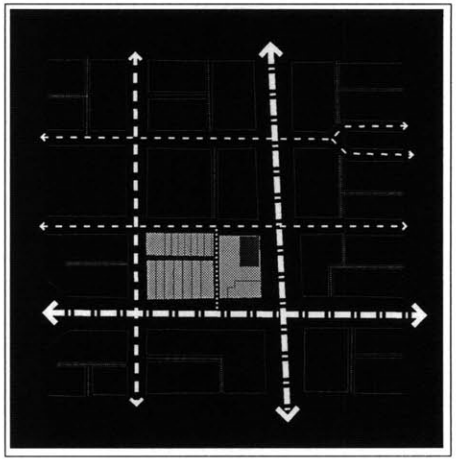
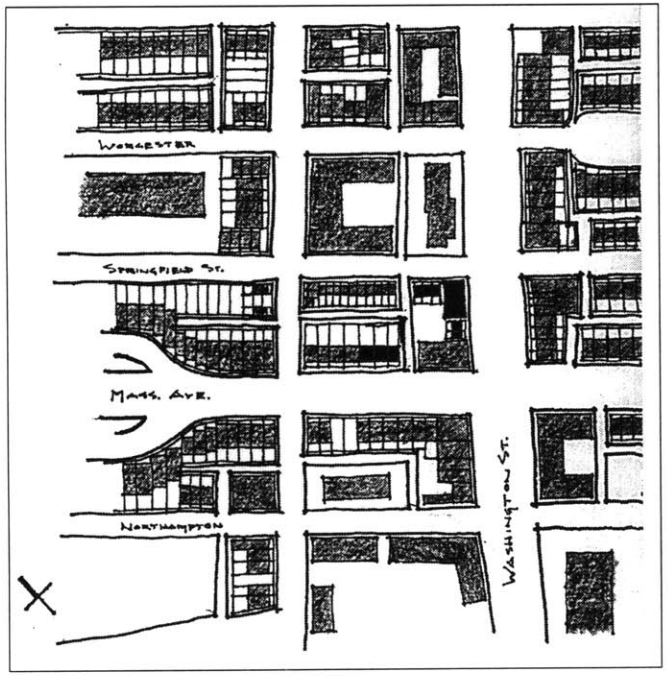


*figure 12: Proposed addition of a cross block alley to the site. Adding the alley restores the consistency of the South End street network and provides a spatial displacement to support the institutional land use of the block end.*



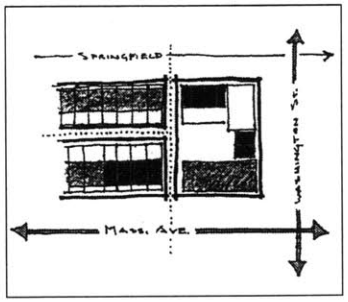




*figure 13 (upper right): Proposed development of the site. The vacant lots are occupied with a rowhouse based infill and the Smith Block remains for renovation.*

*figure 14 (upper left): Site proposal within its urban context. The extension of the rowhouse typology fills a gap in the urban fabric satisfying a concern for integration while supporting the residential needs of the women and their children.*

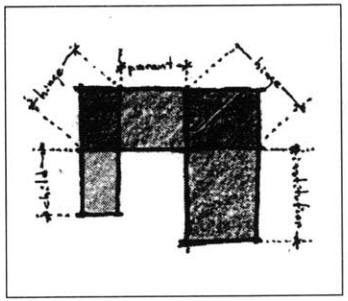
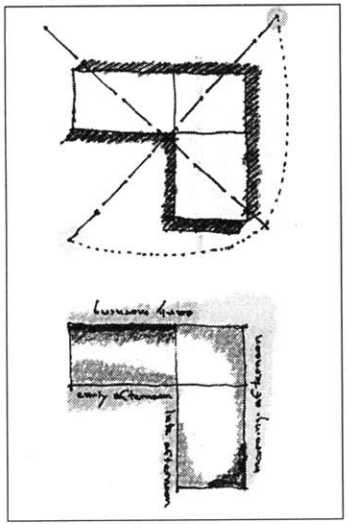


*figure 15: Land use analysis of the design proposal showing how the institutional and residential components remain separate yet related.*



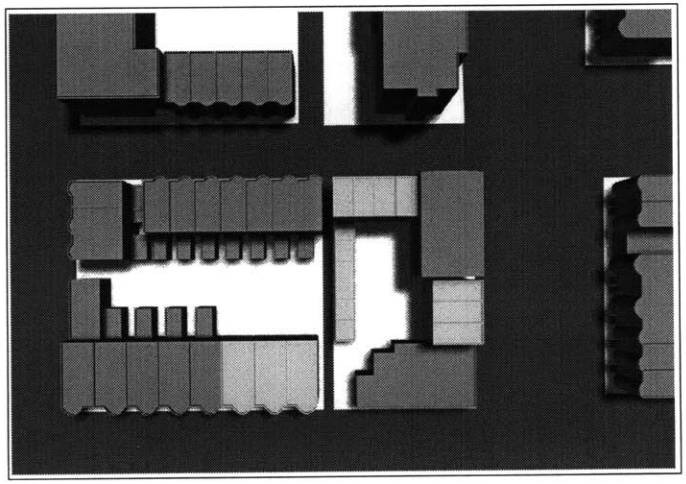
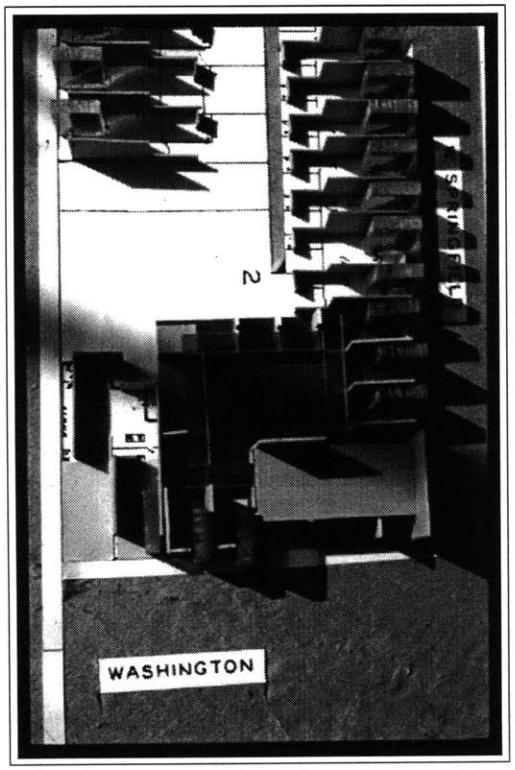


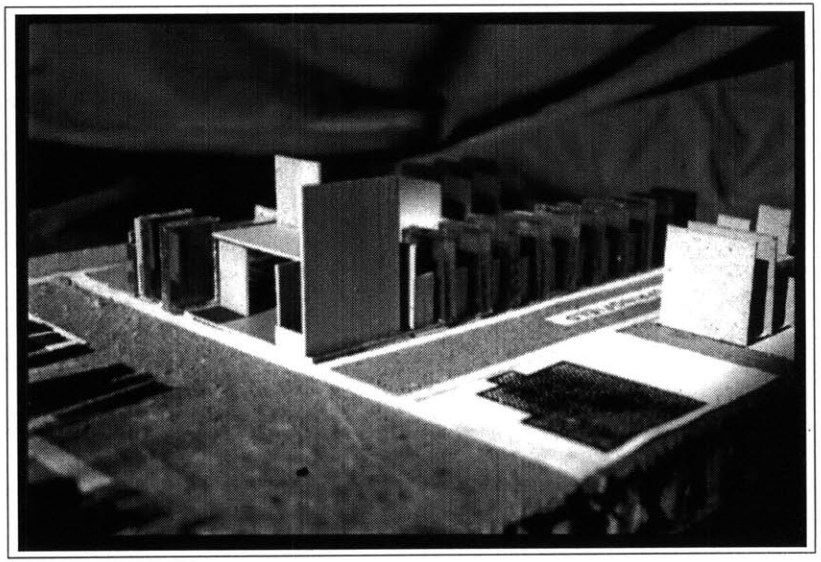
*figure 16 (lower left): Sun/shadow sketch of the design proposal.*

*figure 17: Bird's eye view of a massing model showing the cross block alley, the rowhouse infill, a proposed 'mews' and the shading effects of these interventions on the courtyard during the summer solstice.*

*figure 18: Plan view of the model showing the relationship between the residential infill (left) and the community space within the renovated Smith Block (right).*

*figures 19, 20: An analytical model which maps the difference between a residential access/use system (along Springfield St.) and a proposed institutional system (block interior).*



The design process began by simultaneously exploring the integration of the facility into the city at an urban scale and the integration of the patients into a community at the scale of the individual unit. In order to accomplish the goals set out for the design of the treatment facility it is important that its two characters, institutional and residential, remain related yet autonomous. Residential-care buildings are receiving increased attention to the growing problem of housing the elderly, the terminally ill and the mentally and physically disabled, but unlike those examples the goal of this facility is to move out and to successfully re-establish a life within the community. To this end the design can play a large role in providing a variety of environments which support the increased autonomy of an individual as they progress through the treatment program. These considerations led to a variety of questions, such as:

*When and where is this facility an institution?*
*When and where is this facility a residence?*
*When and where is it both?*
*How does the individual identify herself within the facility?*
*When and where is she a patient*
*When and where is she a resident?*
*When and where is she a mother?*

Through an early schematic design I sought to articulate these spatial relationships paying close attention to the definition of a private/domestic space and the collective/institutional space and those zones of ambiguity which mediate between the two.

The design places the bedrooms along the outer edge of the building forming a continuous zone of cellular, private spaces connected to shared living/kitchen areas which open to a terrace overlooking the courtyard. This arrangement forms three concentric zones with the most private spaces creating a habitable barrier to the outside and becoming increasingly public as one moves inward towards the heart

of the facility -- the courtyard. The move from outside to inside is one from private to public, from individual to community. The ambiguity of the individual perched above the street looking out over the city an expression of that person's tenuous position between dependence and independence.

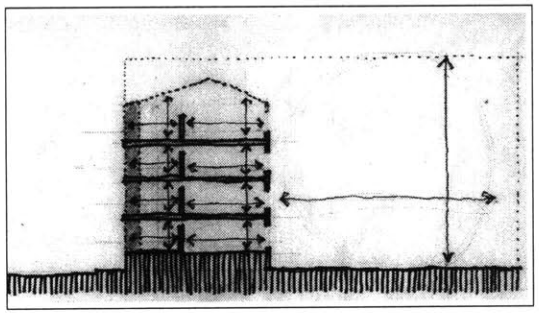


*figure 21: Diagram showing the relationship between the street (left), the private bedrooms, the shared living areas and the courtyard (right). The smallest, most private spaces are adjacent to the street while the larger public spaces comprise the interior life of the facility.*

The unit design also contains early ideas about flexibility that could accommodate two single women (with or without infants) or a mother and her family. In the first case the living/kitchen area would be a shared domain and in the second it would become the private space of the family, supported between the city on one side and the therapeutic community on the other.

The unit design is based on the adjacent rowhouses along Springfield St. These are approximately 20' wide, separated by load-bearing masonry party walls. Parallel to the two walls is a single bearing wall which divides the house into a 14' living zone and a 6' circulation zone. This configuration lends itself to residential privacy, separated as it is from neighbors by about 2' of solid brick. The proposed design borrows heavily from the residential associations of the rowhouse type but recog-

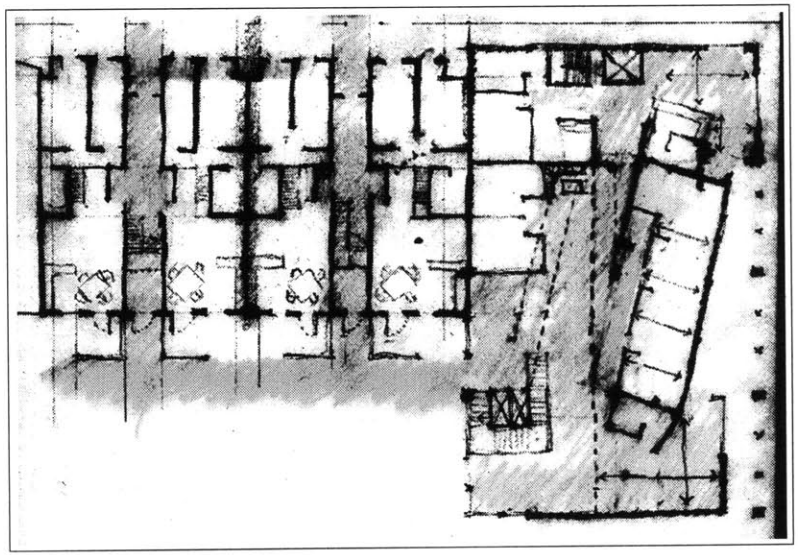


*figure 22: Schematic first floor plan of the residences and the clinic. The residences (left) are constructed as a series of bays, with each pair of bays sharing a street entry. They are adjacent to but separate from the Smith Block (right) which has a larger, more public entry sequence.*

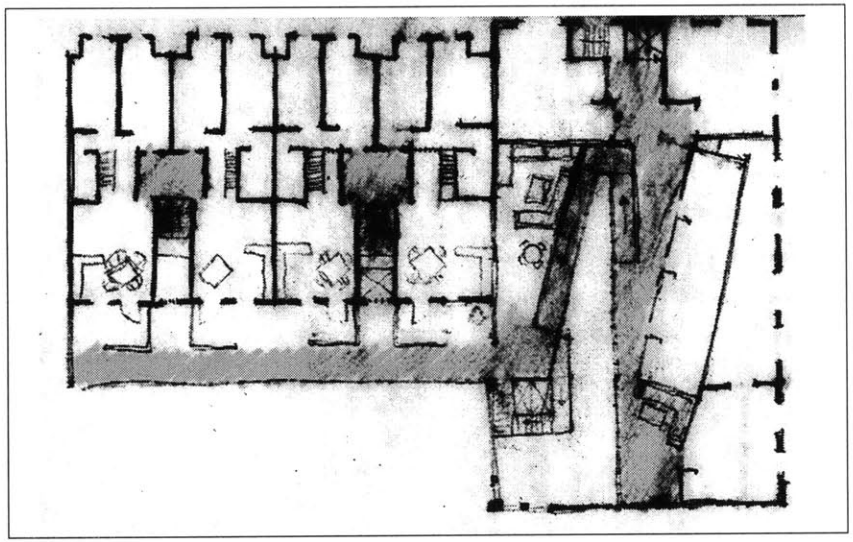


*figure 23: Schematic third floor plan of the residences and the clinic. Access from the street to the residential units moves deep into the building, underneath the bedrooms, to a stairwell with two entries at each landing. The entry opens into a living/kitchen area leaving the bedrooms (top) to the 'outside', raised a half-level to reinforce their privacy, and the terrace to the 'inside'. The shared terrace (bottom) with access to the clinic can only be reached by moving through the living/kitchen area, creating an indirect relationship of street-to-residence and residence-to-clinic, establishing a strong connection between the private realm and the life of the city and the shared realm and the therapeutic community*

nizes its shortcomings in terms of its usefulness in an institutional setting. Load-bearing party walls oriented perpendicular to the street support privacy and a residential circulation system which moves parallel to them, but cannot support the kind of lateral freedom of movement needed in an institution. Therefore, the row-house typology is modified by combining it with a typical institutional building system of steel frame and concrete decking. The result is a typological hybrid of party walls along the street edge creating the cellular privacy of the bedroom and a steel frame towards the courtyard allowing for larger, more flexible open spaces to support the collective activities of the facility. The move from institutional to domestic space is a programmatic shift enhanced and reinforced through architectural means: The exposed brick of the masonry walls gives the residential area warmth and scale appropriate for a private domain while the steel frame and concrete decking provide the open spaces necessary within the institutional setting.

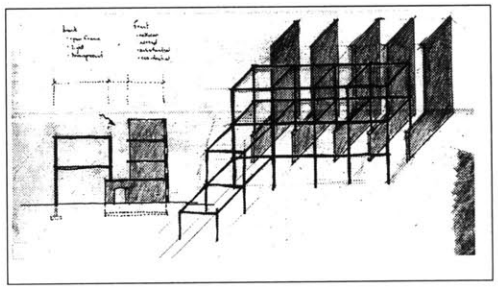


*figure 24: Sketch of the structural hybrid employed in the residential design. The party walls are used to create privacy for the bedrooms and the steel frame encloses the public space for each floor.*

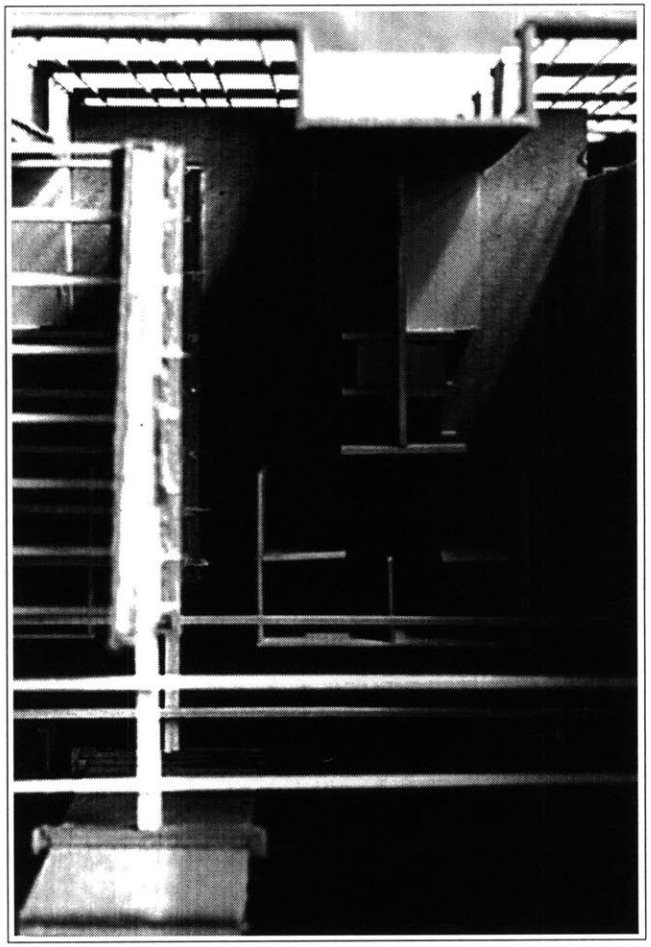


*figure 25: Bird's eye view of model showing a single bay partitioned into two bedrooms with a shared bathroom core (bottom) and a baywindow (top).*

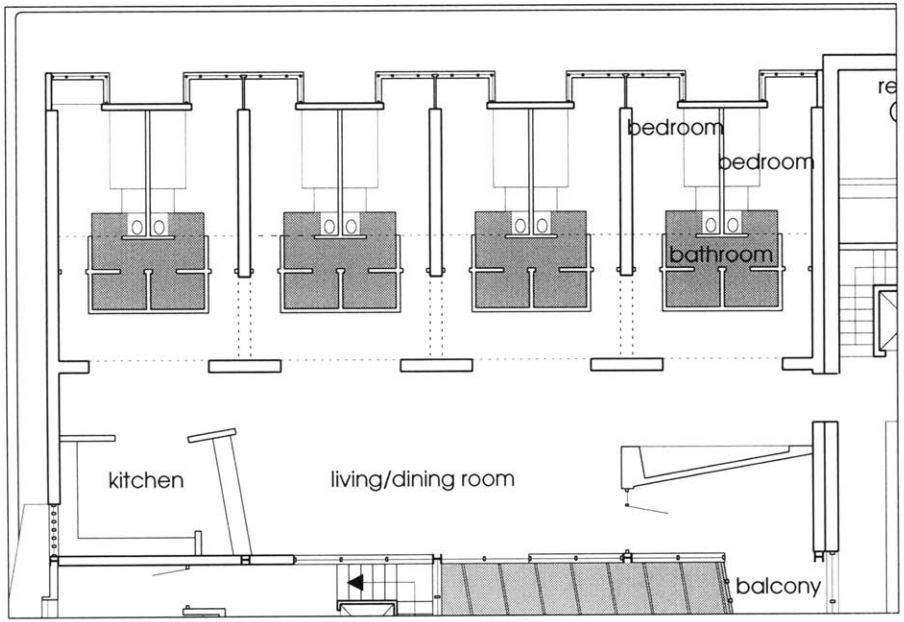
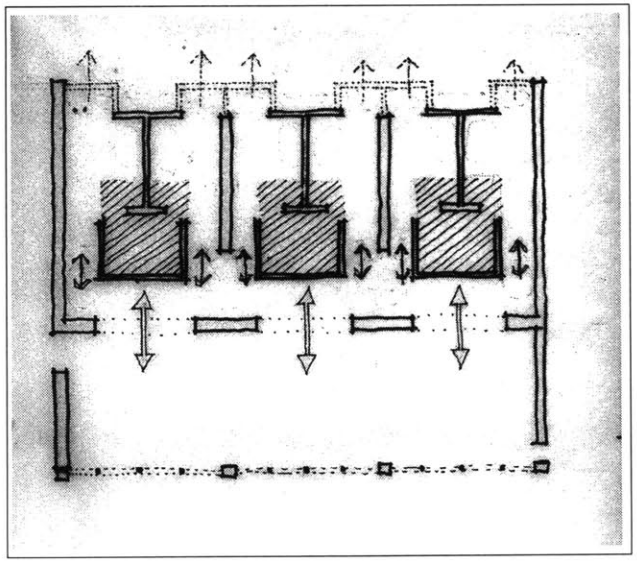



*figure 26: Partial plan of residences showing the relation between the private bedrooms and the shared living space.*

The final pair, *group : individual*, defines the needs of and relationships between a personal space of reflection and the shared spaces of the family, the group and the entire recovery community. The idea of concentric relationships is expressed in the design of the rooms and furniture allowing for a nesting of privacies within the shared spaces.

Each floor is divided into a series of bays along the street edge defined by the masonry walls. Each bay in turn is divided into two bedrooms with a shared bathroom. The bedrooms share their respective entries with the two bedrooms to either side of them creating a link of shared territories which bridge from one unit to the next along the length of the hallway. The set of units on each floor opens to a common space for the floor through which is accessed the public spaces for the treatment population which are found on the fourth floor of the Smith Block.

The units of each floor constitute an extended family who share a kitchen, a living/dining area and a porch. In this area the women of the entire floor are accountable to each other and are expected to share in the responsibilities of cooking, cleaning, managing and supervising their children. Meals are prepared collectively and the women are joined by their children, establishing a daily pattern of family interaction.



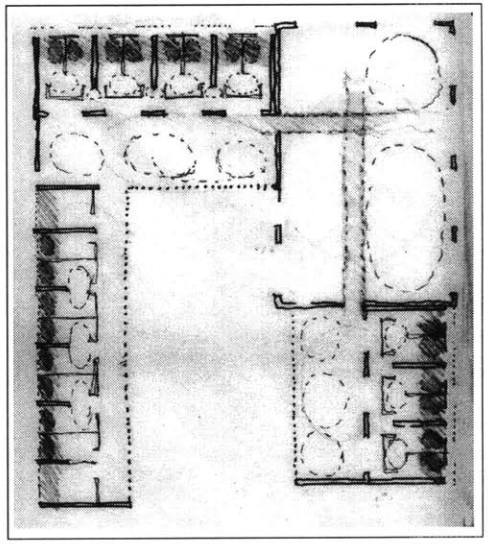


*figure 27: Privacy diagram showing the nesting of the private bedrooms within the public life of the facility.*

*figure 28: Diagram showing the relation between the bedrooms, shared bathrooms and entries and the living space for the floor.*

This configuration results in a concentric nesting of spaces starting with the only truly private space, the bed. Outside of this 'room' is the baywindow, indirectly shared with one's neighbor, and the bathroom shared with the neighboring bedroom. The bathroom tiling extends into the room to define the sink area as a space distinct from the remainder of the room and separated yet connected to the shared toilet and shower. The shared entry connects one unit to the next along the hallway defining the private world of the residences within the public realm of the floor. Each of these floors opens onto the courtyard and the shared space on the fourth floor of the Smith Block, constituting the largest public space of the facility. At this level the renovated Smith Block acts as the community center. These spaces are the shared responsibility of all and include meeting rooms, a library, an assembly room and classrooms.

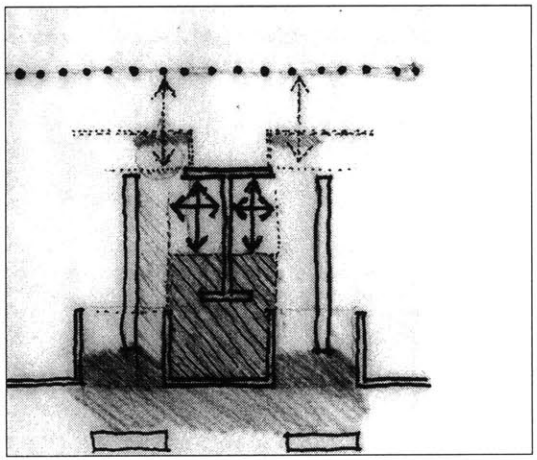


*figure 29: Privacy diagram of a shared bedroom unit showing the nesting of privacies within the room.*

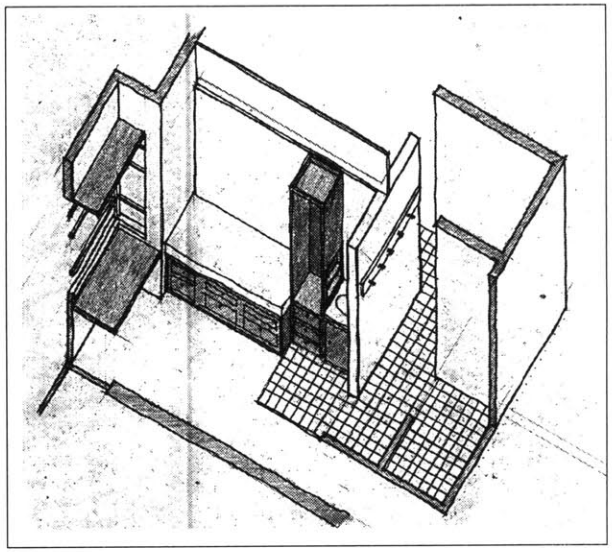


*figure 30: Axonometric drawing of a bedroom showing the baywindow, bed, sink area and shared bathroom.*

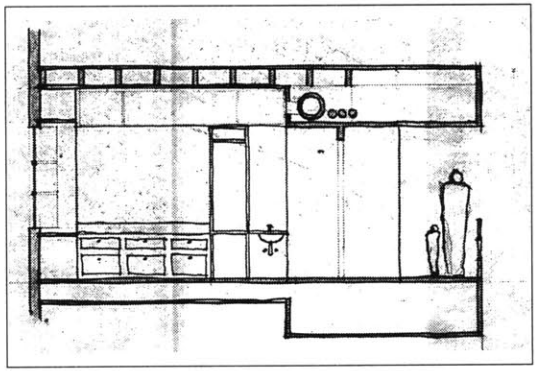
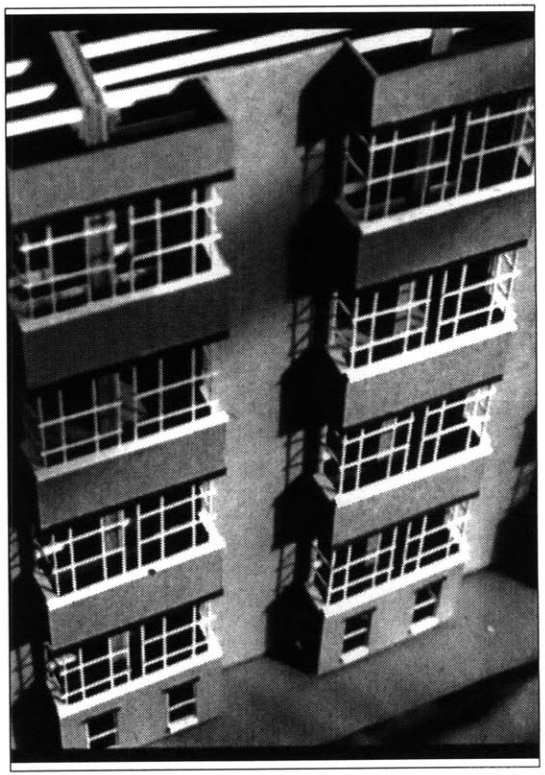


*figure 31: Section through a bedroom.*

In a peer-support situation, with two women occupying the unit (with or without infants), the bathroom is a site of cooperation and shared responsibilities. The sink, which is an indirect part of the bathroom, is the sole responsibility of that person and the bed is ultimately their place of privacy. A new arrival would share the unit with someone who has already been living there for some time in a mentoring situation. The shared territory of the unit acts as a microcosm for the lessons of cooperative living found within the space of the extended family. Her entry and baywindow are shared with the next room over, so while her primary responsibility is to her mentor there is occasion for casual social contact with other residents evoking the strong sense of inter-relatedness found within the recovery community.

For a woman preparing to leave the unit might be occupied by her and her children. This creates an intermediate step towards life after treatment in which the family must begin to negotiate the compromises and responsibilities of living together. This all happens within the limited scope of a bedroom and bathroom, but encompasses many of the mundane challenges encountered in everyday life.

*figure 32: Photograph of the baywindows on the north elevation. The bays are divided in two and can be used as a desk, a window seat or a crib. A light shelf above the window gives extra storage space within the room.*



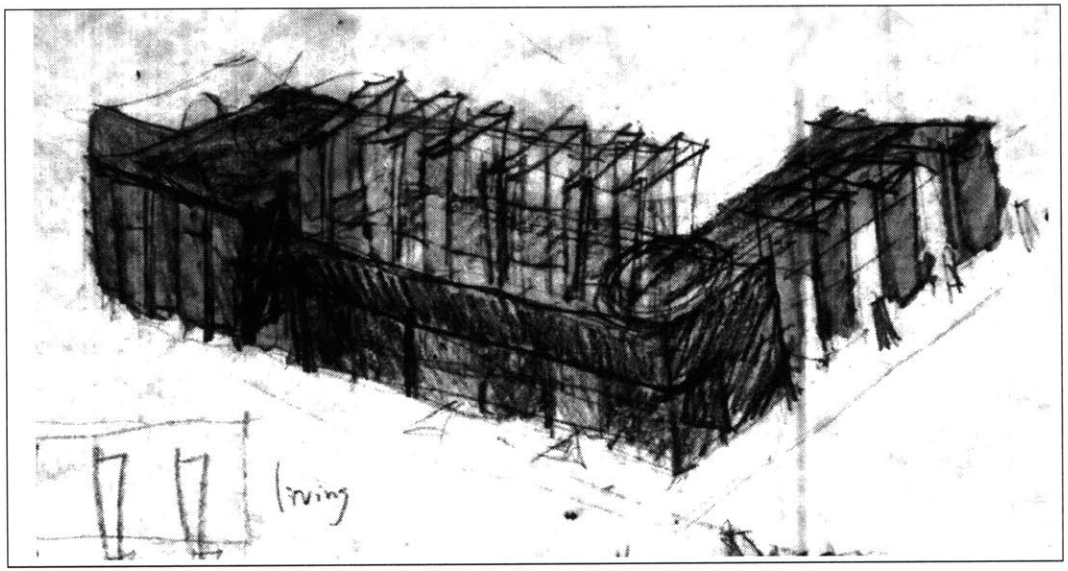



*figure 33: Early Sketch of the design.*

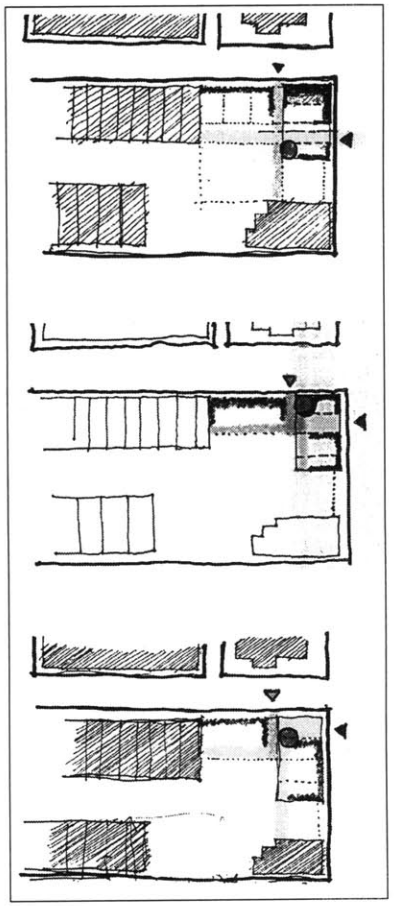


*figure 34: Generative access/use diagrams exploring the positioning of a public entry and a private, residential entry.*

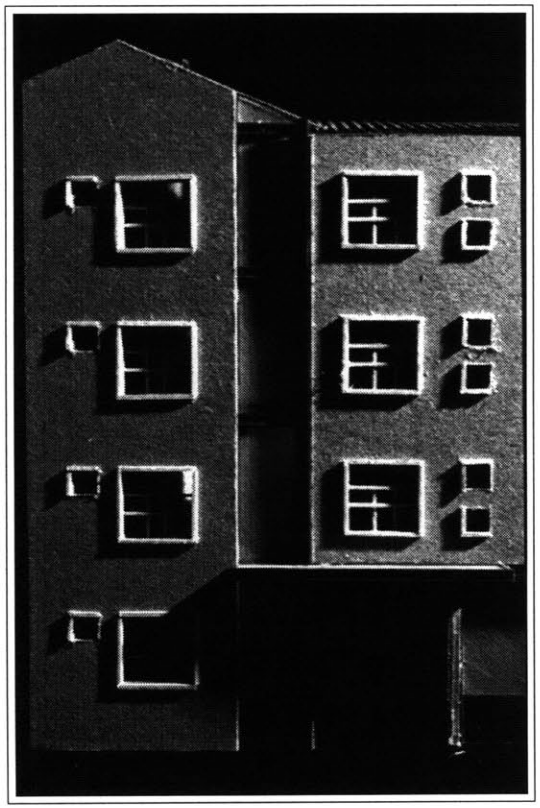


*figure 35 (above): Photograph of the model.*

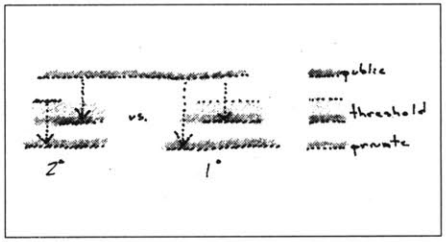



*figure 35: Analysis of primary and secondary entrances.*

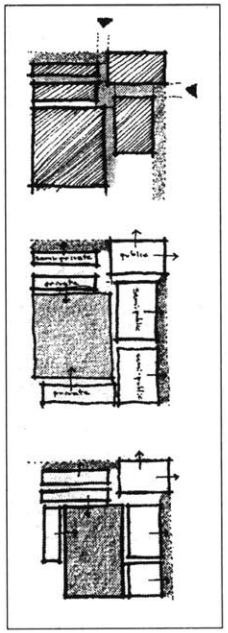


*figure 37 (upper right): Access/Use diagram exploring a residential entry on Springfield St. and a public entry arcade on Washington St.*

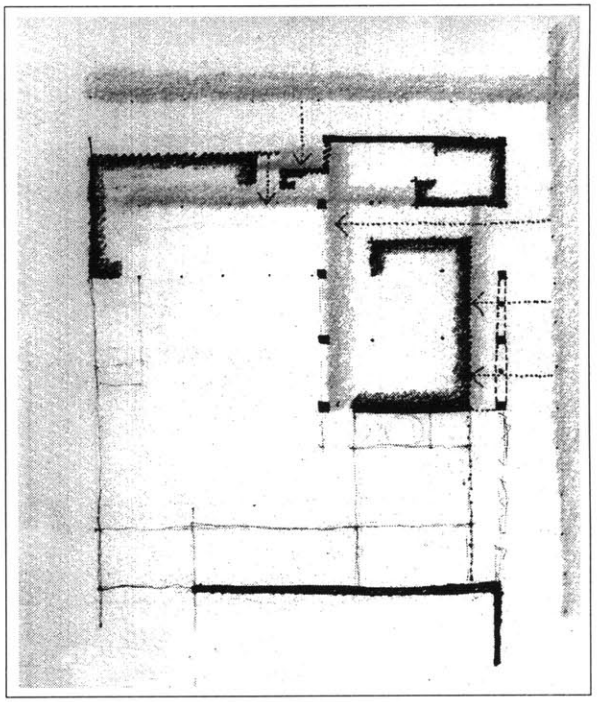


*figure 38 (lower left): Block position/use diagram showing the public and private territories in relation to Washington St. and Springfield St.*

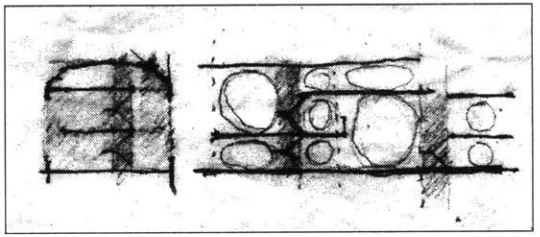
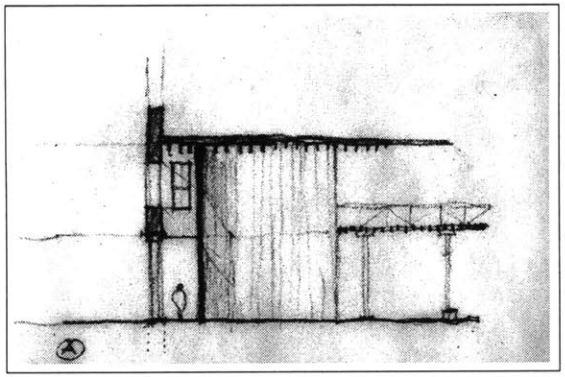


*Figure 39 (lower right): Section diagrams.*



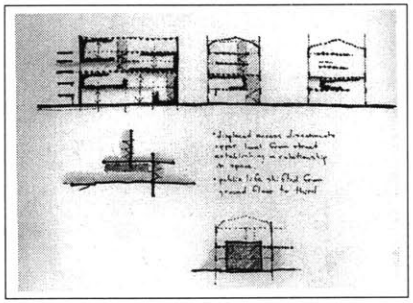


*figure 40 (upper left): Entry section sketch.*

*figure 41: Access/use section analysis.*

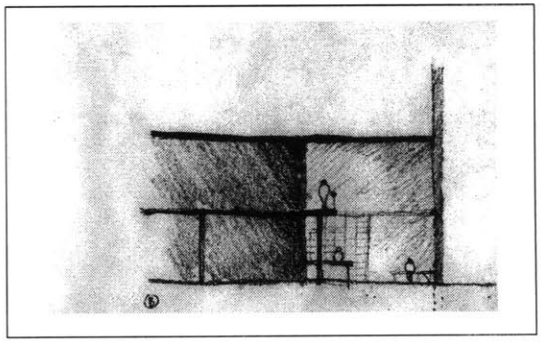


*figure 42 (above): Clinic section sketch.*

*figure 43 (left): View of the model from the northeast.*

## Program

**Administration**

| | |
|---|---|
| Entry Reception | 1 @ 120 $ft^2$ |
| Office | 4 @ 110 $ft^2$ |
| Conference Room | 1 @ 120 $ft^2$ |
| Reception | 1 @ 100 $ft^2$ |
| In-take Counselor | 1 @ 110 $ft^2$ |
| Storage | 1 @ 110 $ft^2$ |

**Residences**

| | |
|---|---|
| Bedroom | 65 @ 130 $ft^2$ |
| Kitchen | 7 @ 320 $ft^2$ |
| Dining Room | 7 @ 400 $ft^2$ |

**Detoxification Clinic**

| | |
|---|---|
| Examination Room | 2 @ 150 $ft^2$ |
| Nurse's Station | 3 @ 200 $ft^2$ |
| Office | 1 @ 110 $ft^2$ |
| Dining Room | 1 @ 300 $ft^2$ |
| Living Room | 1 @ 300 $ft^2$ |
| Bedroom | 10 @ 110 $ft^2$ |

**Therapeutic Spaces**

| | |
|---|---|
| Meeting Room | 4 @ 150 $ft^2$ |
| Assembly Hall | 1 @ 500 $ft^2$ |
| Daycare | 1 @1,250 $ft^2$ |
| Nursery | 1 @1,250 $ft^2$ |

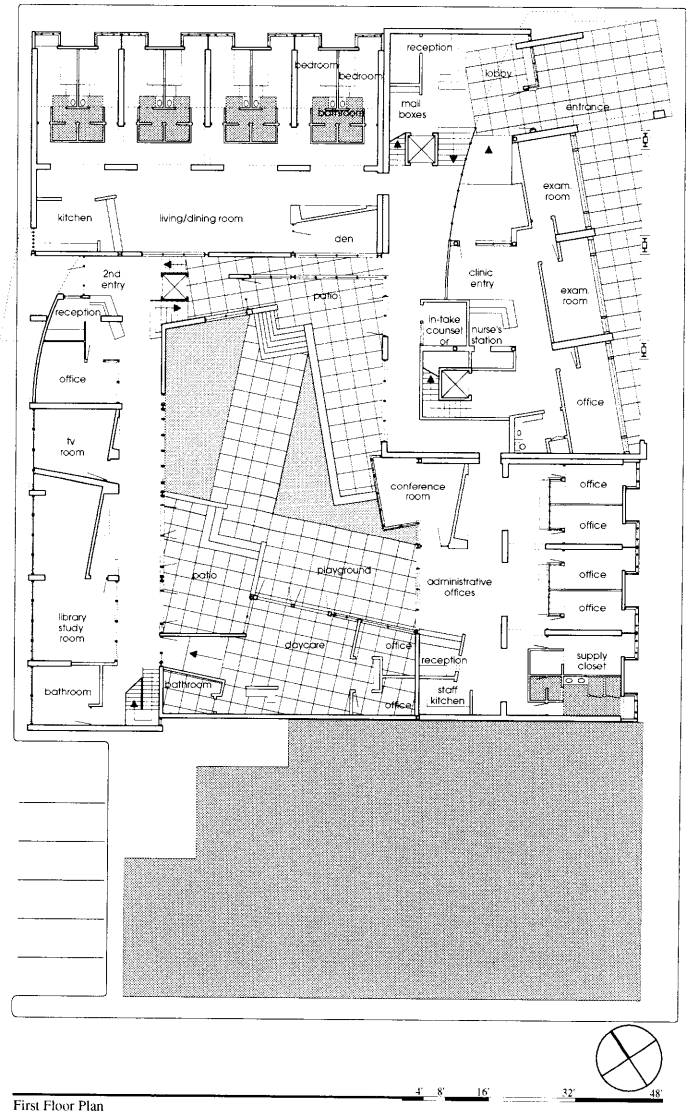
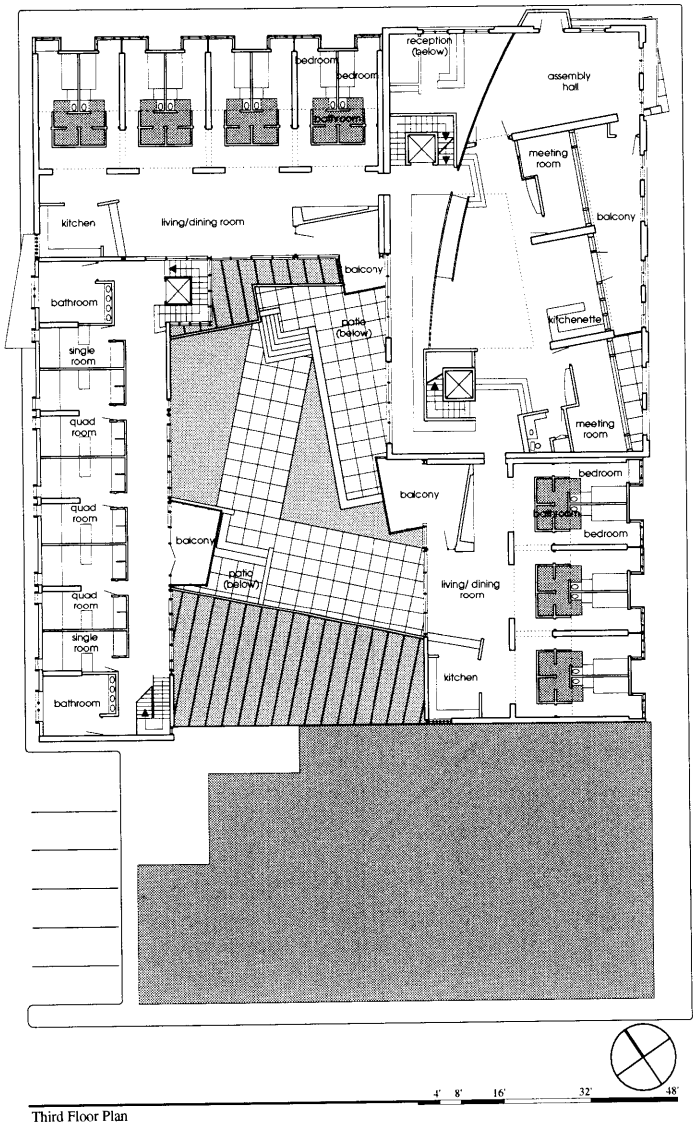





*figure 44: First floor plan.*




Third Floor Plan

*figure 45: Third floor plan.*

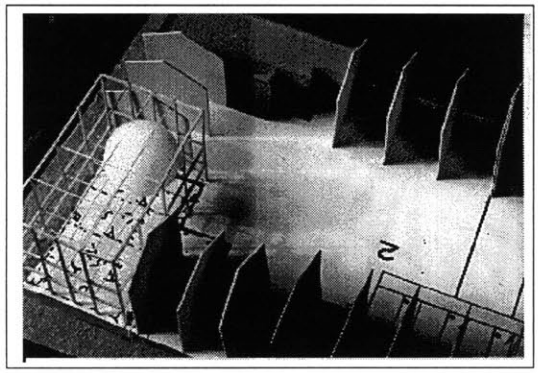
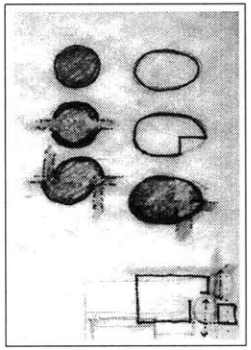


*figure 46: Detoxification Clinic concept model. The detoxification process takes place within a totally enclosed volume housed inside the Smith Block. The notion of rooms within rooms manifests as a solution to the problem of creating a completely isolated part within an integrated whole.*

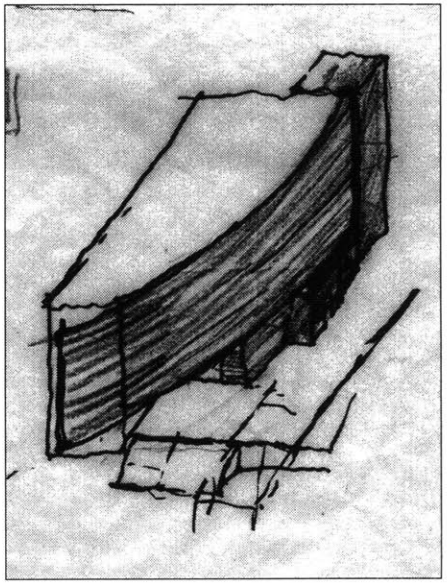
*figure 47: Axonometric sketch of the detoxification clinic showing the curved interior wall and the carved out first floor entry.*

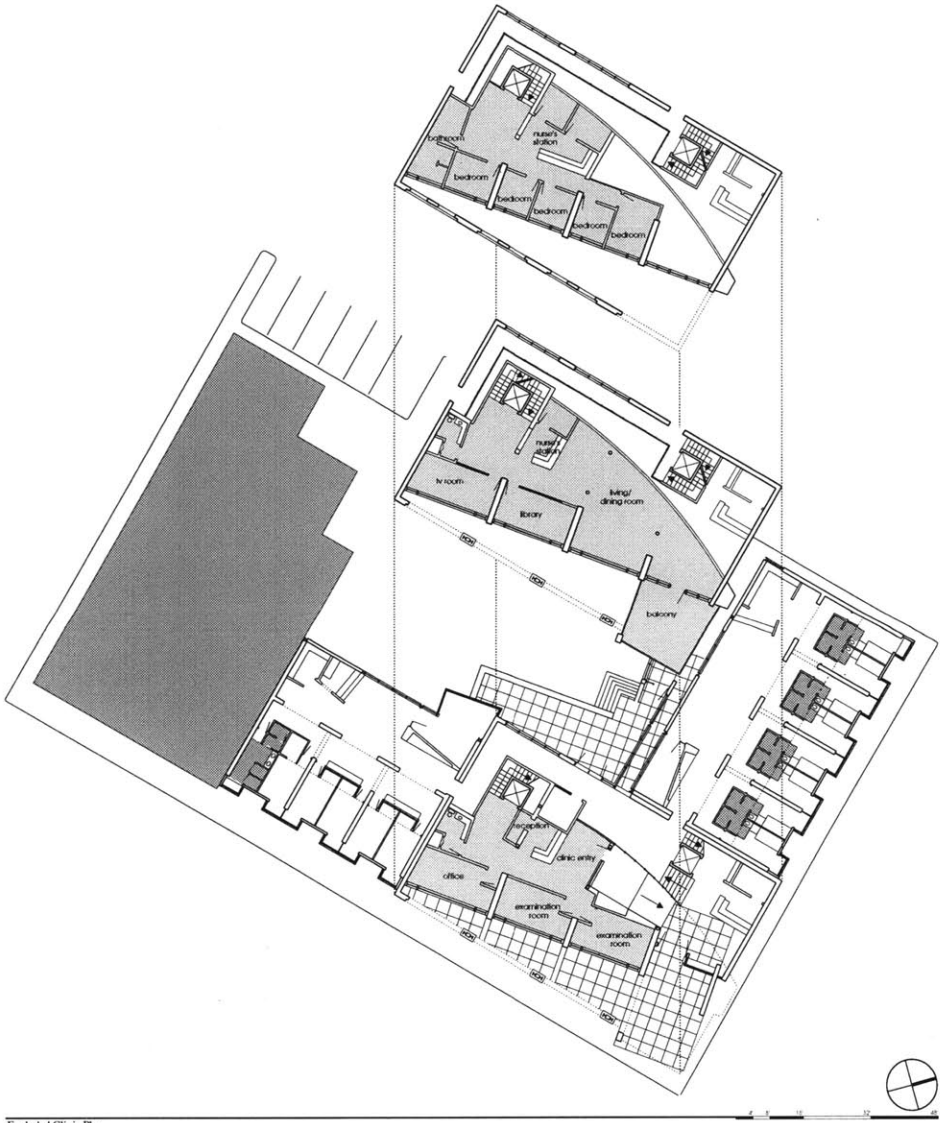
*figure 48 (below): Generative sketches exploring the articulation of the clinic volume both in plan and section.*



The generative concept driving the design of the detoxification clinic is the idea of a self-contained volume housed within a volume. Using the Smith Block as an existing structure the clinic is inserted within it as an autonomous building functioning as a distinct part of the rehabilitation facility. Since the detoxification process is a distinct phase of the treatment program which does require total physical isolation this strategy is effective. Articulating the detoxification clinic as a semi-autonomous building within the Smith Block also allows it to be closed and locked at night which is an added measure of security which allows the remainder of the facility to remain 'open' 24 hours a day.

The clinic is a three story glass enclosed structure housed within the first two stories of the Smith Block. Entrance to the clinic is gained by first moving into the Smith Block through the principal entry on the northeast corner and then down a short ramp into a cut in the volume of the clinic. The first floor of the clinic contains a receptionist's desk, an office for a visiting doctor and medical examination rooms to be used by all members of the recovery community for physicals, pre-natal care and urine tests. From the first floor there is a vertical circulation core to move into the two upper floors which constitute the detoxification clinic proper. The second floor houses the living spaces for the clinic including a kitchen, living room and terrace. The third floor contains a nurse's station and apartment and the rooms in which the patients live. There is no connection from any of these rooms to the rest of the facility except through the first floor entry.






Exploded Clinic Plan

*figure 49: Exploded plan showing the volume of the detoxification clinic in relation to the residential wings. The clinic can only be accessed from the ground floor and operates as a distinct building within the facility. Inside the clinic all the spaces are oriented towards the street. The individual here is not yet a member of the rehabilitation community and thus remains balanced on an edge between inside and outside.*

*figure 50: View of the northeast corner. The clinic is a new entity growing within an older one, expressing a process of renewal and revitalization. The balcony in the foreground frames the principal entry to the facility and is a place of ambiguity for the detox. patient, being outside of the clinic walls and displaced from the street below.*

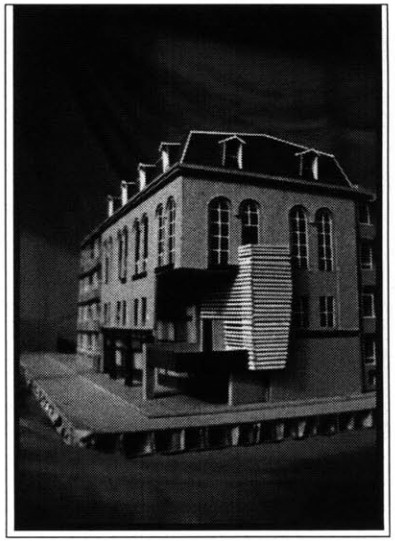
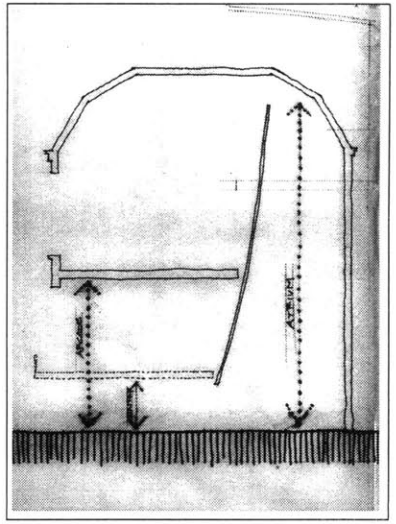


*figure 51: Aerial view of the Smith block showing the extension of the curved clinic wall beyond the plane of the existing Smith Block. This extension creates a balcony for the fourth floor gymnasium and frames the clinic balcony, seen in the lower left of the photo.*

*figure 52: Diagrammatic section of the entry. The public entry occurs at the intersection of the clinic volume and the existing walls of the Smith Block creating a sequence from the street to the lobby of expansion, compression and expansion.*

*figure 53 (below): Night view of the clinic. The translucent wall to Washington St. emphasizes the delicate barrier between inside and outside and gives the clinic a glowing presence at night.*



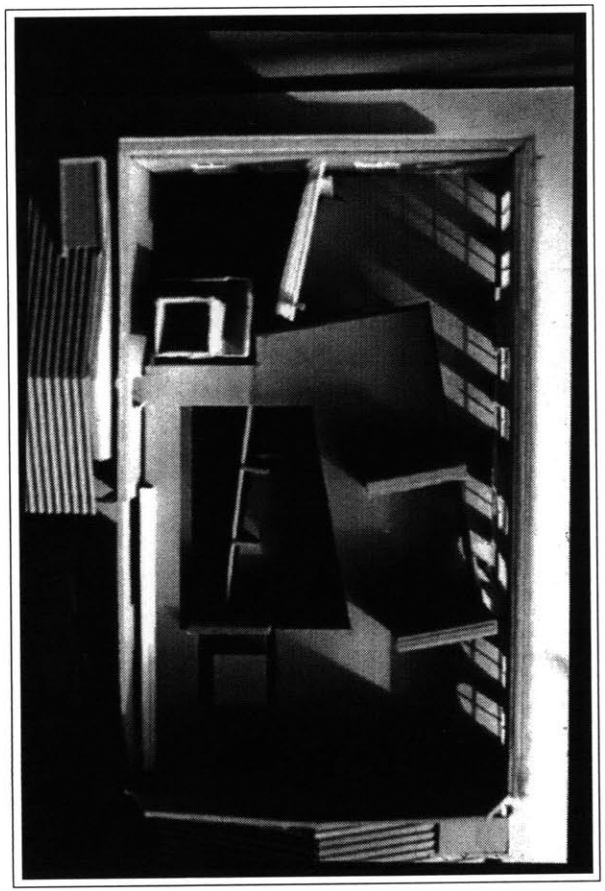


*figure 54: Plan view of the model showing the intersection of the clinic with the fourth floor public spaces. There is no communication from one to the other so their connection is expressed through architectural means. The curved wall extends up forming a banister overlooking the courtyard and the wall of the gymnasium (top). The skew of the translucent wall re-emerges forming a small atrium space (left) and an indoor/outdoor patio where it pulls back from the Smith Block wall (middle right).*

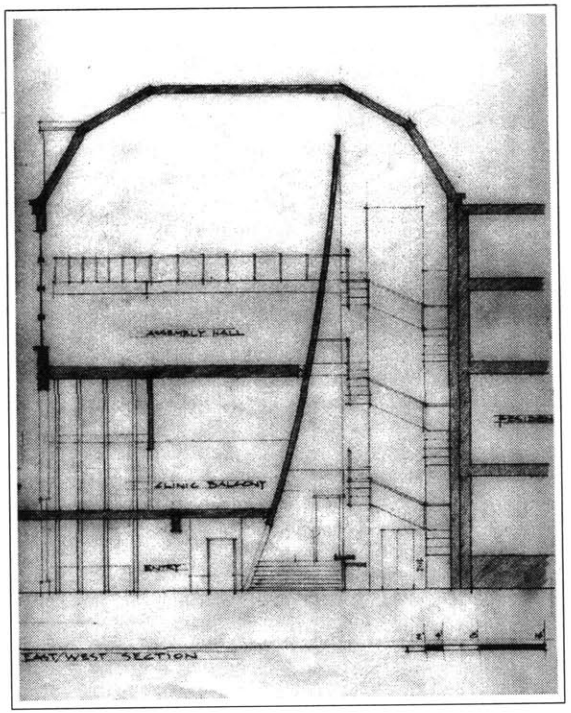



*figure 55: E-W section through the Smith Block. The section demonstrates the position of the clinic. The curved wall forms a barrier to the courtyard and the remainder of the facility, pushing the focus of the clinic towards the street, separated from it by the translucent wall.*

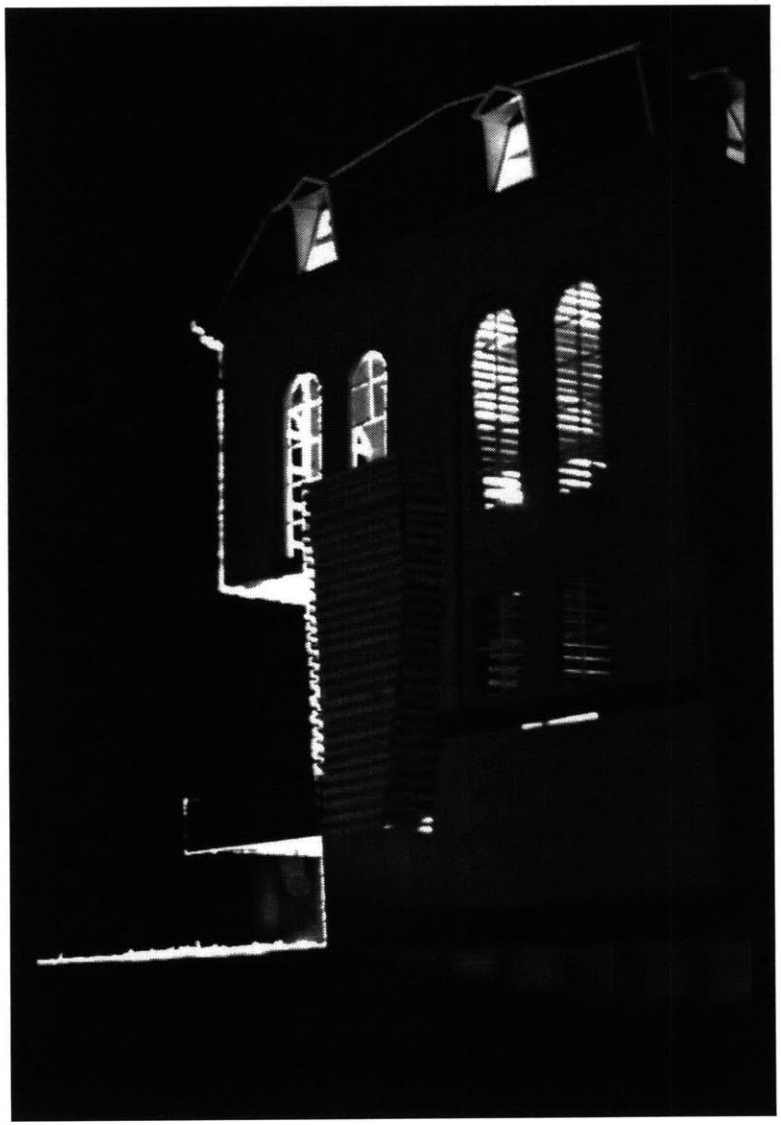


*figure 56 (facing page): Aerial view of the Smith Block interior.*

*figure 57: Night view of the Smith Block north elevation.*

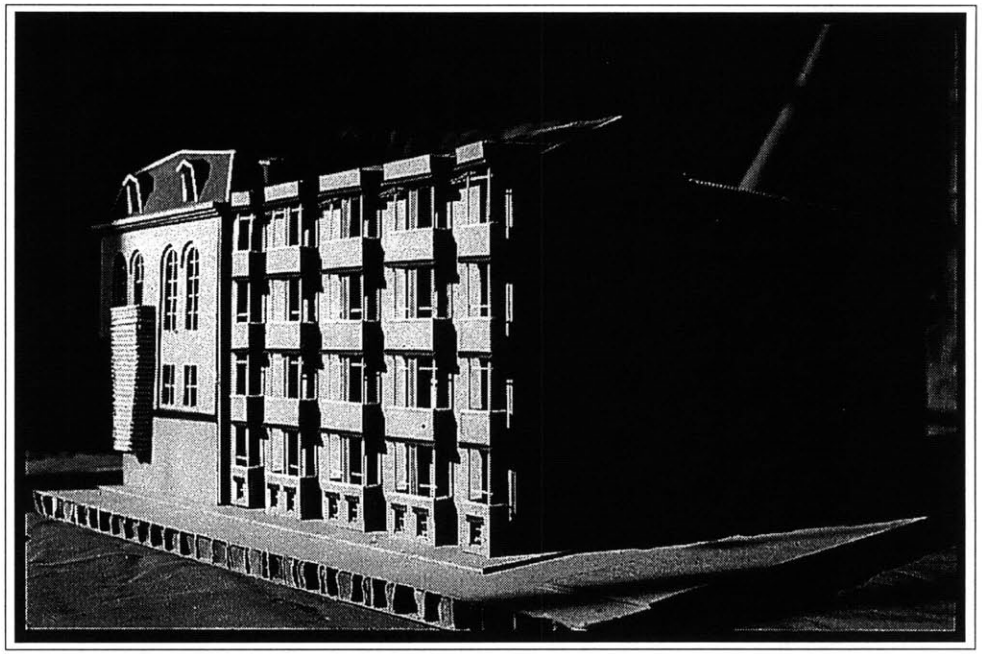


*figure 58: View of the north elevation.*

*figure 59: North elevation.*


West Elevation

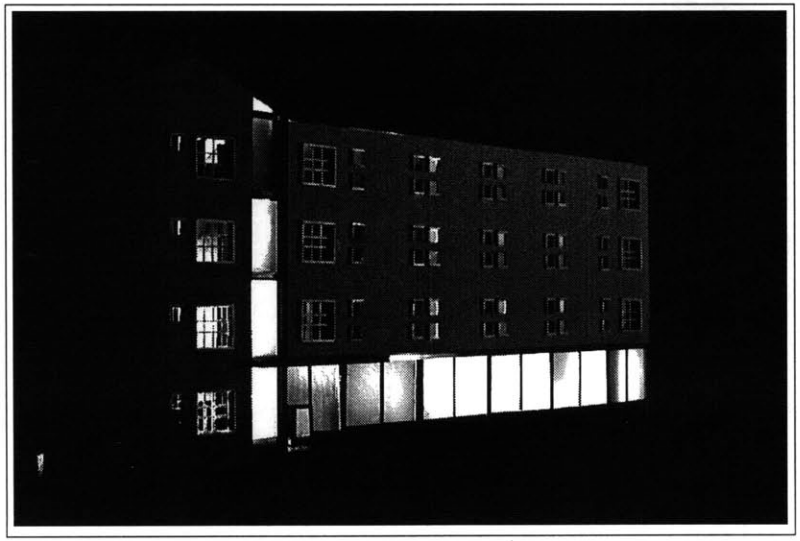
*figure 60: West elevation (the children's residences). The children do not get an entire bay as their mothers do, but each has a deep window-shelf located above the bed.*

*figure 62: View of the model at the intersection of Washington St. and Springfield St.*

*figure 63: East elevation showing the renovated Smith Block on the right and the infill housing on the left.*

*figure 64: North elevation showing the extruded curved wall and balcony of the clinic on the left and the residential baywindows on the right.*

*figure 65: West elevation showing the final party wall of the residences on the left and the children's wing on the right. The first floor of the children's wing, behind the translucent wall, is their own common space.*



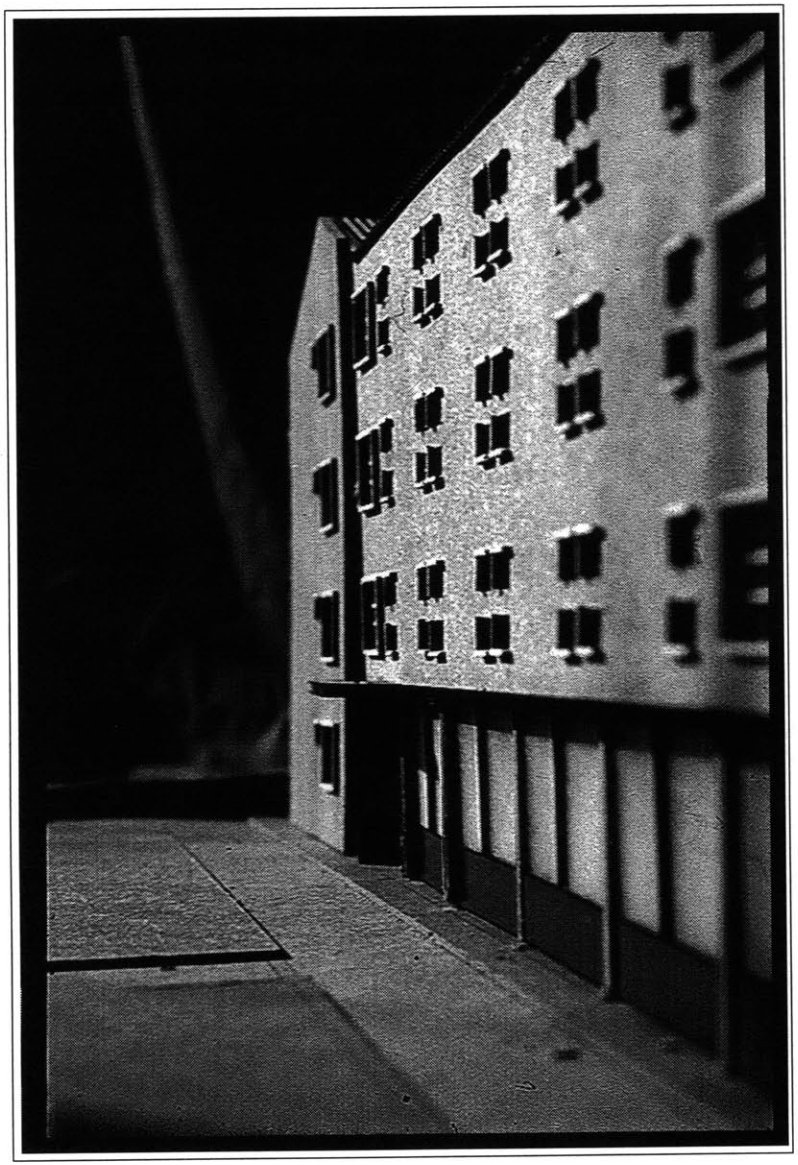
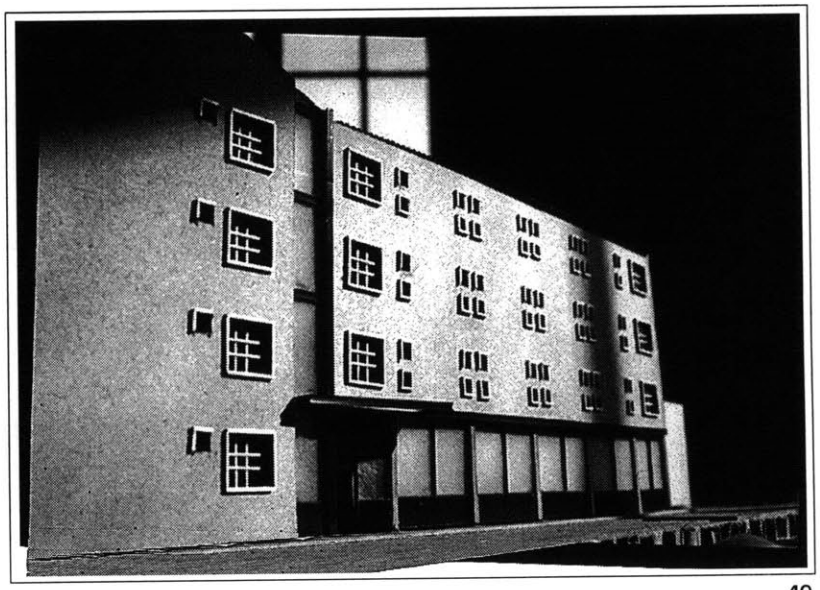


*figure 66 (facing page): Aerial view of the west elevation.*

*figure 67 (facing page): Night view of the west elevation.*

*figure 68: View of the west elevation from Massachusetts Ave.*

*figure 69: View of the west elevation from Springfield St.*



## The Courtyard

*The courtyard represents the inner-life of the facility as distinct from its urban presence. Here the entire recovery community identifies as a single population. The design of the courtyard and the courtyard elevations is driven by a sense of openness and unity. The parents have windows and balconies from which they can look into the courtyard and a raised terrace adjacent to the Smith Block. The children's wing is raised slightly above the courtyard level while the daycare center opens directly onto it. The courtyard is the domain of the children, it is their secure outdoor space. Their parents can never move directly onto it but have several vantage points from which they can observe the courtyard.*

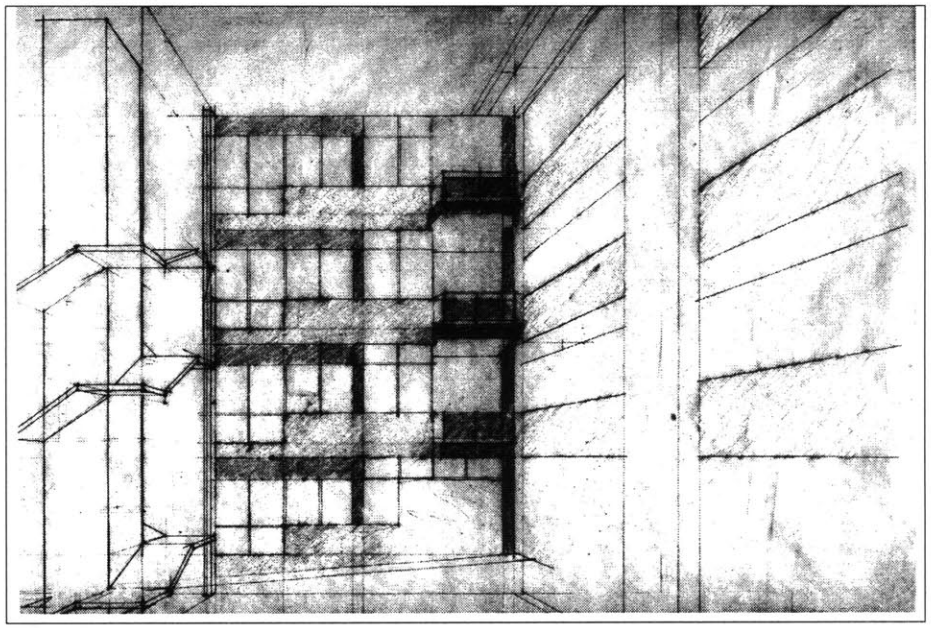


*figure 70: Perspective sketch of the courtyard.*

*figure 71 (below): Aerial view of the courtyard.*

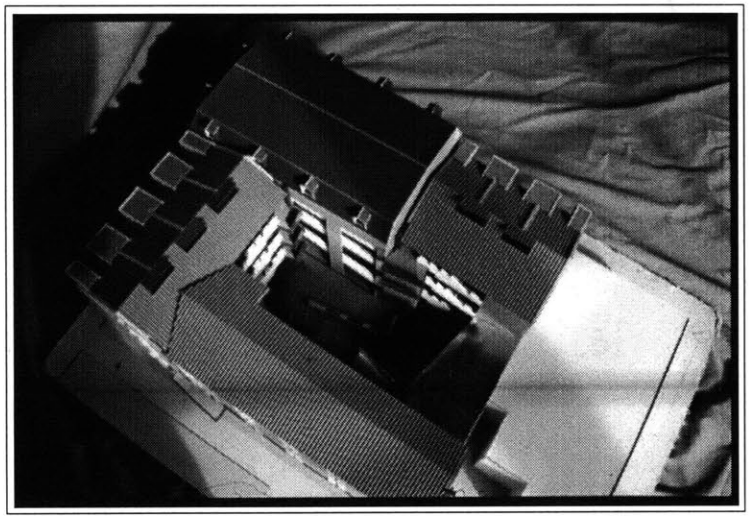
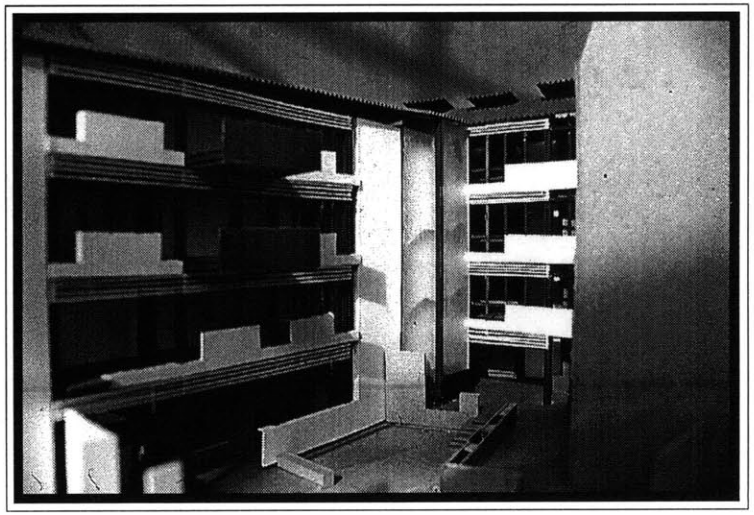
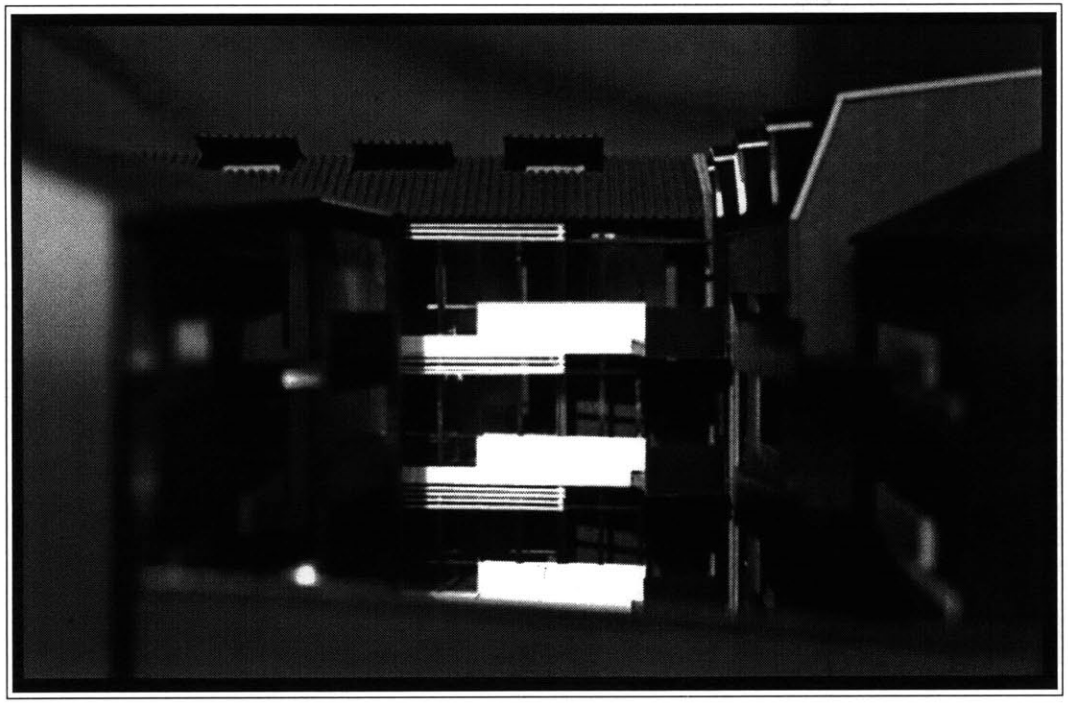


*figure 72: View of the southeast courtyard elevations.*





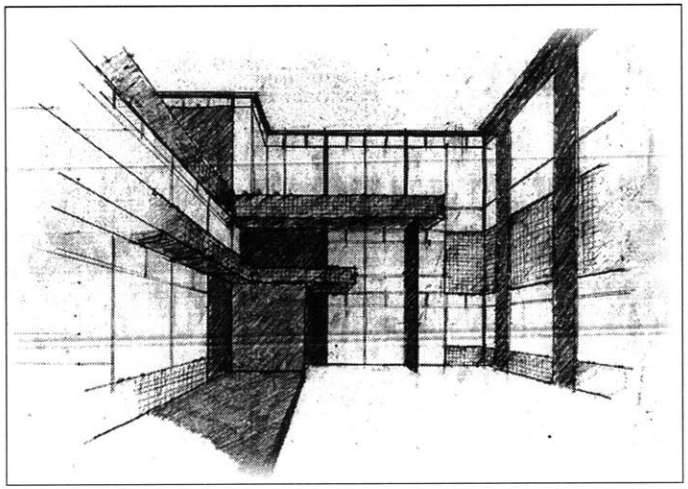


*figure 73: View of the courtyard from the south.*

*figure 74: Aerial view of the courtyard*

*figure 75: Early sketch of the courtyard..*

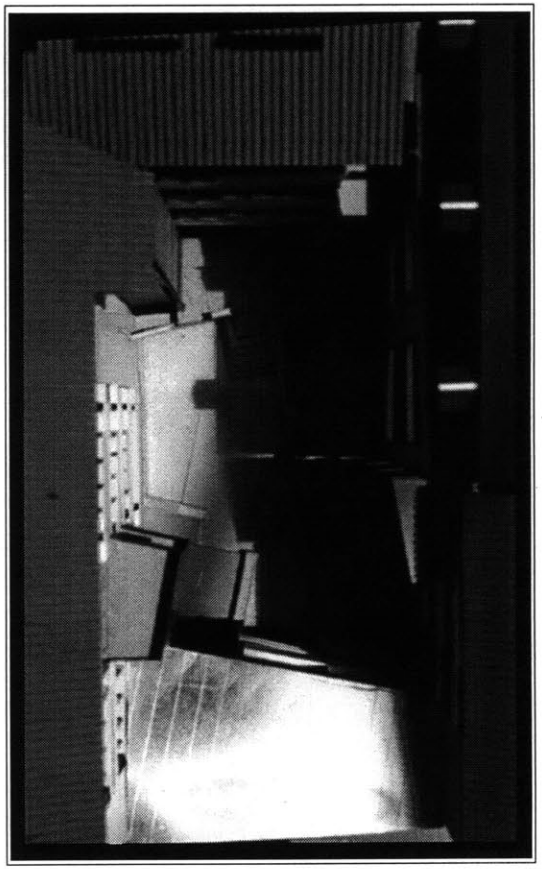


*figure 76: Detail view of the south courtyard elevation showing the louvers, the parapet and the projecting balconies on the right.*

*figure 77: View of the south and west courtyard elevations.*

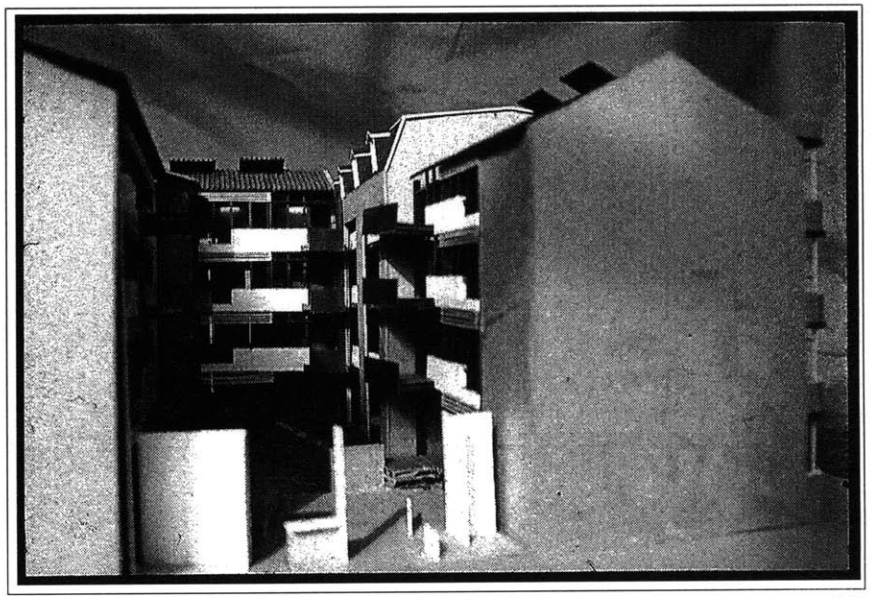
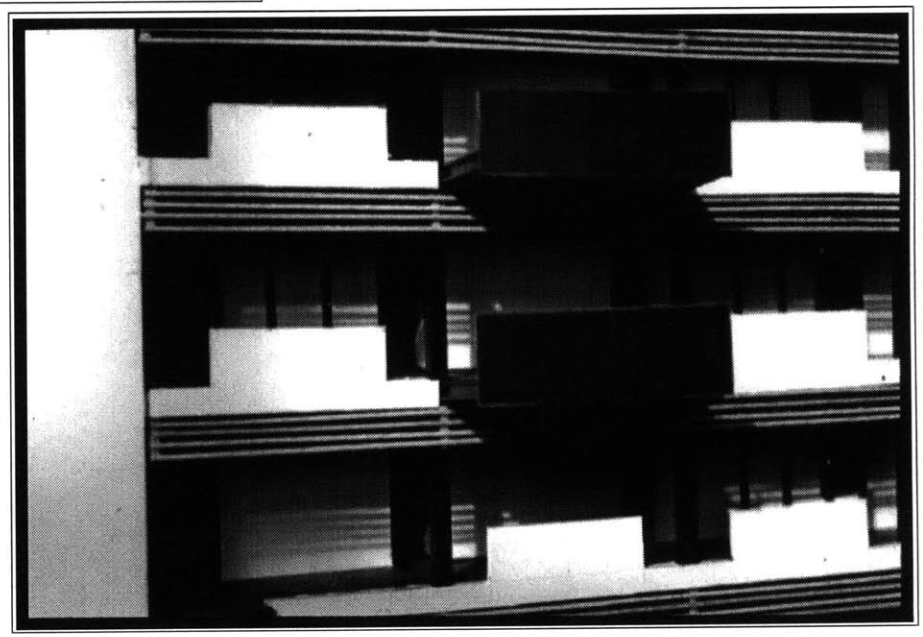


*figure 78: View of the north and west courtyard elevations. The daycare and nursery are on the left and the children's residence on the right.*

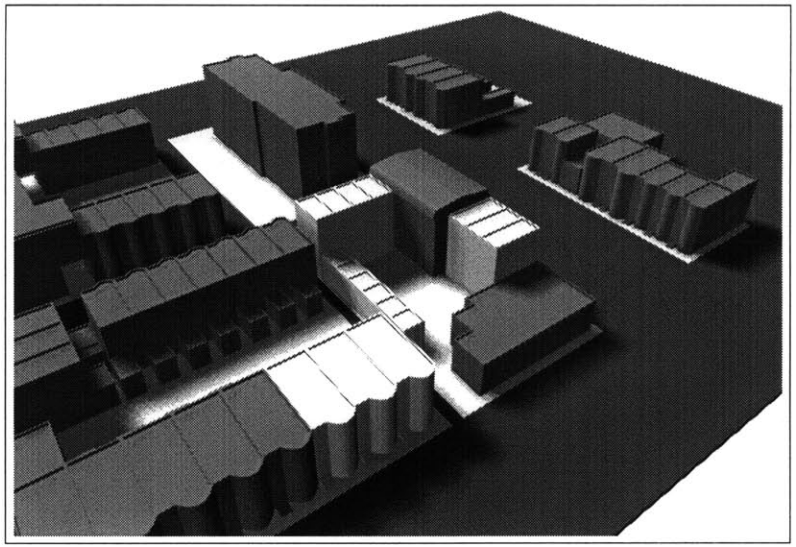
*figure 79: Detail view of the west courtyard elevation showing the projecting balconies on the upper two floors of the children's residences.*



Through the development of this project in design reviews, discussions and research it was apparent that there are many ideas and opinions floating around concerning the prevalence of substance abuse its treatment. It also became clear that my proposal for this problem drew those thought out into the open providing a foil against which those voices could be heard.

The question which remains to be answered is whether design can assume a proactive role in the mechanisms of social change. Do the intricate levels of dependence articulated architecturally contribute to a solution to this this very real and powerful problem or merely give it expression in form? I believe that in this capacity architecture is a tool of visualization but it can also be employed as a tool of evaluation and discovery, although in this case that remains to be tested.

## Appendix A: Sun Studies



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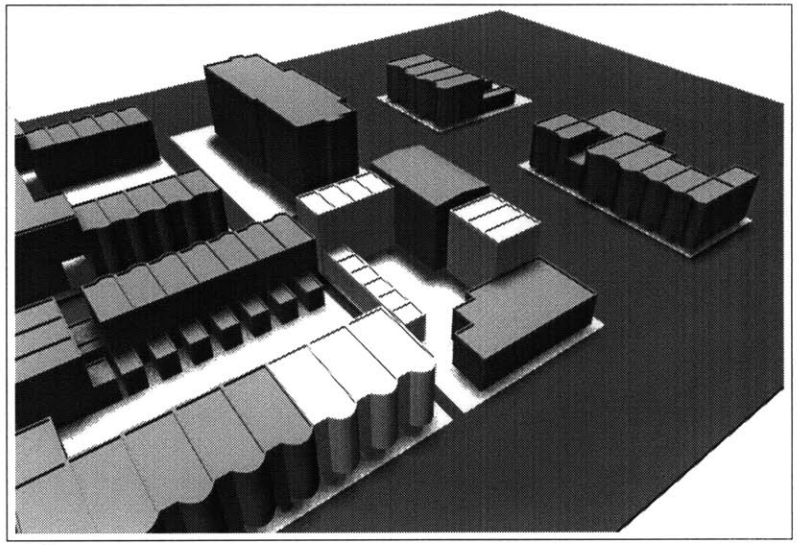

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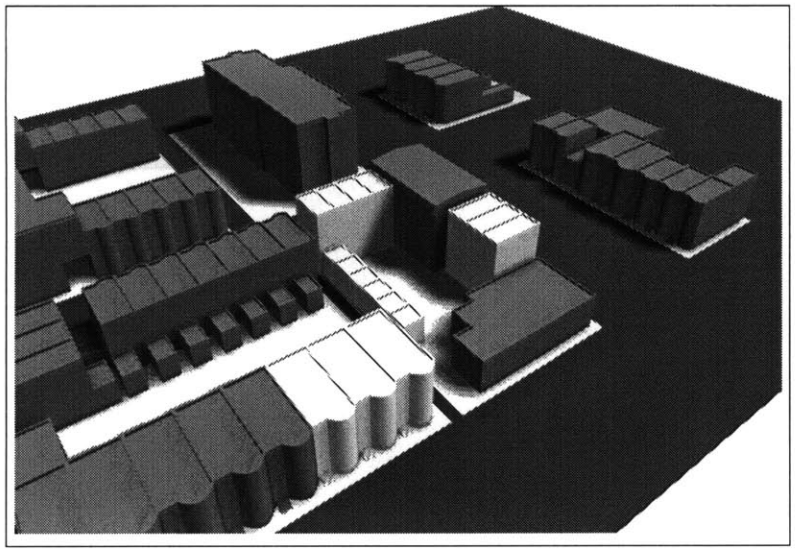
*figures 80-83: Computer renderings of the design proposal at four times during the summer solstice to determine the effects of the proposed intervention in its urban context and of the shading effects in the courtyard.*



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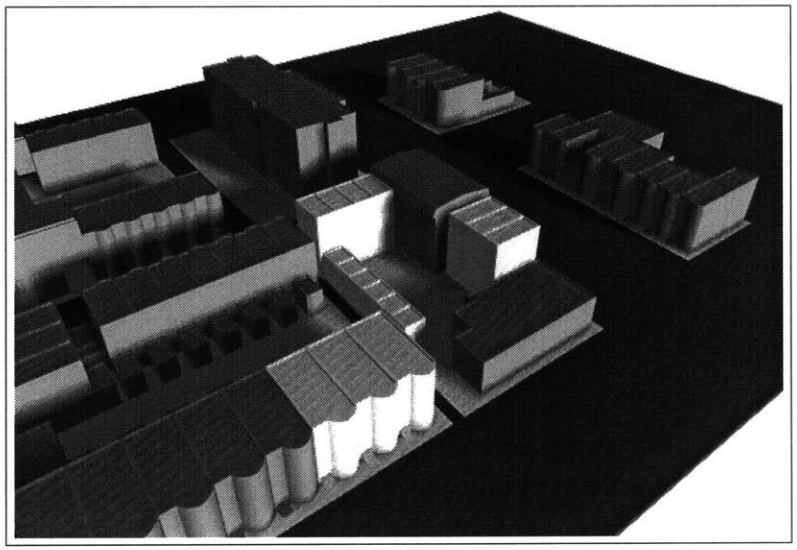

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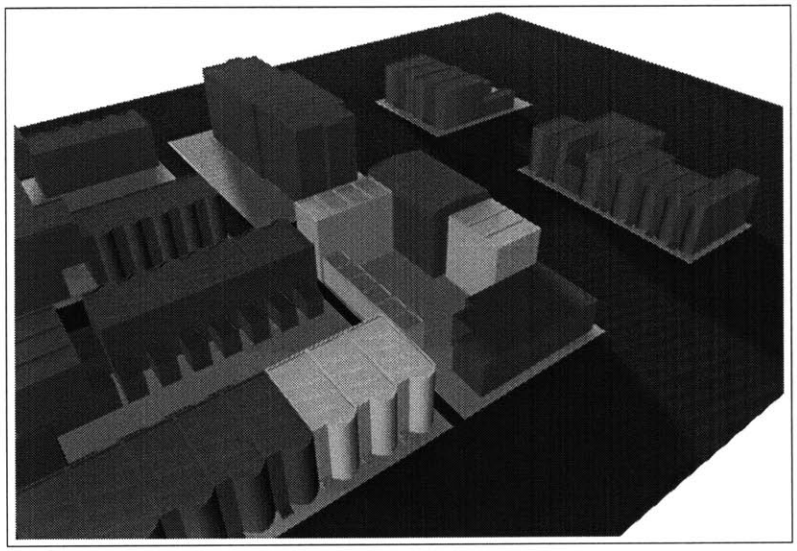
*figures 84-87: Computer renderings of the design proposal at four times during the winter solstice.*



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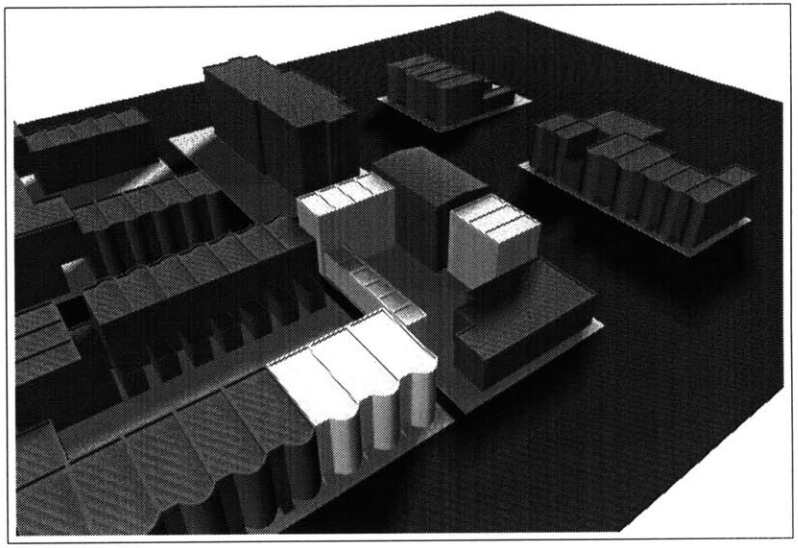

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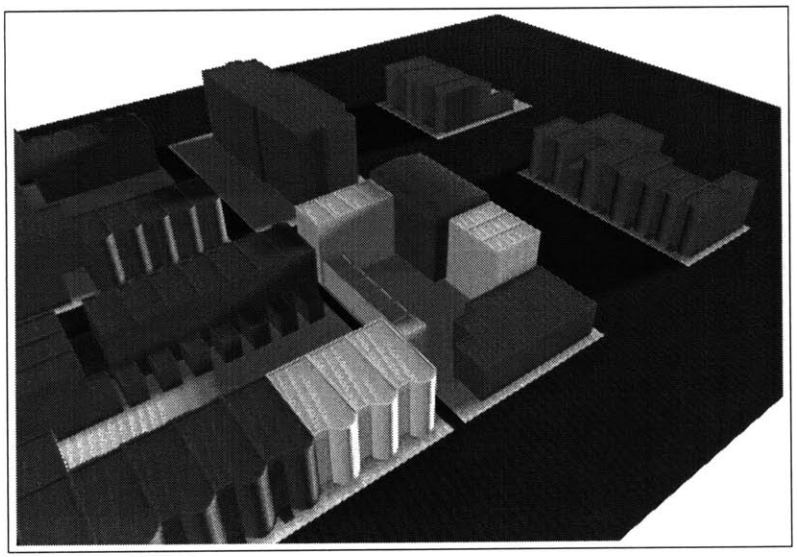

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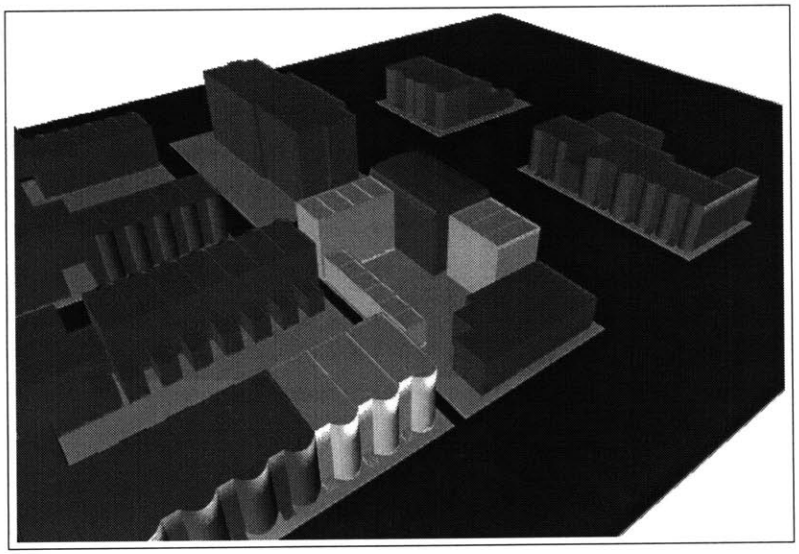

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New Households, New Housing. ed. Karen Franck and Sherry Ahrentzen. Van Nostrand Reinhold: New York, NY. 1989.

This collection of essays arises from the observation that the paradigm of the 'single family detached house' does not meet the needs of a large portion of American households. Two significant populations neglected by the dominance of single family homes are singles living alone (24% of the housing market) and single parent families (12% of the housing market). Furthermore, only 10% of nuclear families match the ideal of wage earning father, homebound mother and children. The other 90% of theses families have to deal with the complexities of balancing a home life while maintaining two careers. The book is divided into three sections, focusing on different family types and presenting alternative solutions which respond to the concerns of each.

*Part II: Housing for Single-Parent Households.* Chapter 7 (Sherry Ahrentzen) presents an overview of housing for single-parents focusing on the particular difficulties encountered by single mothers. She notes the median income for a two parent family is $30,000 and that for a single father is $20,000 while for a single mother the median income is $8,000 (p. 143). Therefore, the critical issue for single parent housing is to explore alternatives which will ease the burden on single mothers who, with their diminished income, cannot compete for market value housing. In a series of examples from Europe and north America she identifies the following characteristics for single-parent housing: convenient neighborhood location; integrated social services and child care; minimal house maintenance; security. Chapter 8 (Jacqueline Leavitt) presents two prototypical designs based on the concept of "mobility"- meaning one's degree of freedom in moving about and between one's residence, workplace, public facilities and commercial settings. In the design and execution of the housing she emphasizes neighborhood integration, privacy, community, flexibility and resident participation. Chapters 9 (Joan Forrester Sprague), 10 (Christine C. Cook) and 11 (Gerda R. Wekerle and Sylvia Novac) narrate the planning, development, construction and occupation of a variety of transitional and

permanent housing projects for single mothers. Each design was based on a cluster of complete apartments with extra attention paid to issues of security, privacy, accessibility and integrated childcare. Although there was discussion of shared facilities and on-site social services during the planning phases of each of these projects, few of these elements manifest in the final designs.

*Part III: Single Room Occupancy Housing.* Chapter 12 (Karen Franck) provides a brief history of the SRO hotel and its place in American society. She presents a relationship between the current problem of homelessness and the post-W.W.II decline in available SRO housing due to the combined influences of increased single family home construction and urban renewal, which targeted the 'skid-row' neighborhoods where SRO's are typically located. With 1985 estimates of homelessness at 2,000,000 people, 13% of whom are single women and 21% are families, she sees the SRO as a critical housing alternative which deserves renewed consideration. Chapter 13 (Michael Mostoller) presents a prototypical design for a single room which takes into account room proportion and furnishing for a maximum of spatial differentiation and flexibility in a minimum of space. Chapter 14 (Mary Burki) relates the author's experience in managing and developing SRO hotels in Portland, Oregon. Her departure is a glimpse at the actual SRO residents, remarking that all design and management decisions must be made based on the conditions and goals of the resident's lives. Chapter 15 (Karen Franck) discusses the social, psychological and health advantages of SRO living for a variety of single, poor populations through case studies of SRO hotels in the northwest United States.

The Uses of Disorder: Personal Identity & City Life. Richard Sennett. Vintage Books: New York, NY. 1970.

In this book Sennett outlines his ideas for a viable, contemporary city life. Beginning the discussion with an analysis and critique of modern suburbia Sennett describes the isolation and homogeny of suburban life as analogous to the process of individuation and personal development of an adolescent, referring specifically

to the process by which one's reality is constructed from a rigid belief in personal attributes rather than from actual experiences. Drawing heavily on developmental psychology he claims that exclusivity and fear present in suburban communities is the extension of that adolescent phase well into adulthood where real human interaction and conflict resolution is replaced by a fallacious sense of sameness. He extends the argument to the city as well, claiming that modern town planning based on a machine paradigm attempts to segregate and isolate city life through rigid zoning producing the same kinds of isolated, homogenous areas which hinder the multiple interactions upon which good city life is founded.

The latter half of the book introduces his ideas for a new 'anarchism'. His is not the violent anarchism seen in the past, but a productive de-centralization of power in the city which would force members of a neighborhood to look after themselves and each other rather than passively defer to a bureaucratic authority unfamiliar with the particular concerns of the neighbors. Zoning, policing, education would all be left in the hands of the people who use those services. Thus a process of negotiation, compromise and reconciliation would necessarily emerge creating a dynamic urban environment. Two fundamental shifts would have to occur in order for this transformation of the city to happen. One, people would have to be willing to assume the responsibilities of administering their own lives. Two, the affluent citizens who have fled to the suburbs will have to forfeit the privilege of homogeny and return to the complex reality of urban living. Sennett believes that the boredom of suburban life has already sent many suburbanites back to the city seeking the excitement and adventure to be found there, so that process can be expected to continue. The challenge seems to be to decentralize control of the city which would require a radical change in elected politics as well as restructuring all of the city bureaucracies. But more fundamental than either of those changes, both the citizens and the bureaucrats will have to be willing to give up control over the cities future and development. Anarchy, in Sennett's view, involves allowing the people of the city to determine its course through the daily negotiations of city living.

"Women, Housing and Habitability." Symposium on Gender Related Issues: Women in Housing(University of Washington, Seattle). Sandra Howell. MIT Dept. of Architecture: Cambridge, MA. 1983.

This is a short paper about women, housing and the use of social science to inform new housing designs. She discusses the focal issues of isolation, privacy and control in suburban families, making the point that these aspects of suburban living reinforce a "learned helplessness" in the mother. The diminished supervision in suburbia leads to stricter enforcement of rules of control, which for the daughter results in domestic socialization. Her suggestions towards design are not to eradicate the kitchen as some designers argue, but to use it as the psychosocial center of the house. Howell advocates subdividing the typical single family home as a solution for single mother's who can't shoulder the burdens of owning their house. She cites the various social and financial benefits that would arise from this living situation, including mutual supervision and sharing of domestic tasks.

Women's Housing Projects in Eight Canadian Cities. Gerda R. Wekerle. CMHC: Ottawa, Canada. 1980.

A survey of five co-op and three second stage housing projects designed specifically for battered women and single-mothers. The author travelled to each of these projects and surveyed residents and staff to compile significant data about the benefits of these projects. Housing is presented as a service and a base from which to build community. The success of these projects depends upon a diversity of housing options, sufficient common space, affordability, security, accessibility, facilities for children including daycare, opportunities for sharing and support, ease of maintenance and privacy. Plans for some of the projects are included.

A Manual on Transitional Housing. Joan Forrester Sprague. Women's Institute for Housing and Economic Development: Boston. 1985.

Defines transitional housing as a bridge between crisis shelter and permanent housing which provides residency, childcare, life planning/job development and a variety of other services depending upon the specific resident population. Transitional housing can be used for victims of domestic violence, substance abusers, the physically handicapped, teen parents and many others. The statistical success of transitional housing is overwhelming, with, in some cases, 80% of the residents moving on to permanent housing and stable jobs. The manual is meant for anyone interested in planning or seeking out transitional housing and contains useful design suggestions, advise on planning and development as well as 16 case studies which include drawings, descriptions and contacts.

"Meaningful choices: Designing Environments for Change." Sandra Howell. The Construction Specifier. Vol. 37, no. 4. April 1984. p. 54-57.

This article discusses design attitudes and considerations for an aging population and the interactive problem of design and use over time. Her first observation is that elderly homes are usually nothing like the homes from which these people are coming and efforts should be made to make this transition less abrupt. Apartments designed as small homes with kitchens and private bathrooms would accomplish this while simultaneously negating the demeaning aspects of common toilets. Unit design should also adapt to the decreasing competence of the resident allowing them to stay in their apartment while increased care comes to them. Her final point is about social interactions and the importance of incidental transactions. Social spaces should be small enough to be comfortably occupied by a small number of people, while larger spaces should be available when needed.

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Throughout this thesis have relied upon the knowledge, insight and support of a great many people. I extEnd my gratitude to all of you.

I would like to thank especially my advisor, Ellen Dunham-Jones. Through her advice and criticisms I saw how to translate a social idea into architectural form. Her demand for clarity and her persistent confidence in the project were crucial to its compLetion.

I am also grateful to my readers Ann Tate and Len Morse-Fortier for their valued input in the deVelopment of this project.

Thanks go out to the cadre of friends who contributed to thIs thesis with their minds, their hearts and especially their hands. Thanks to Alexi, Aspasia, D.T. Matt, Gwynne and Robin. It brought me great pleasure to work with you. It was inSpirational, educational and fun.